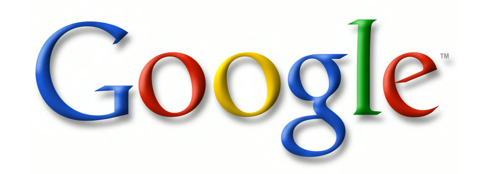
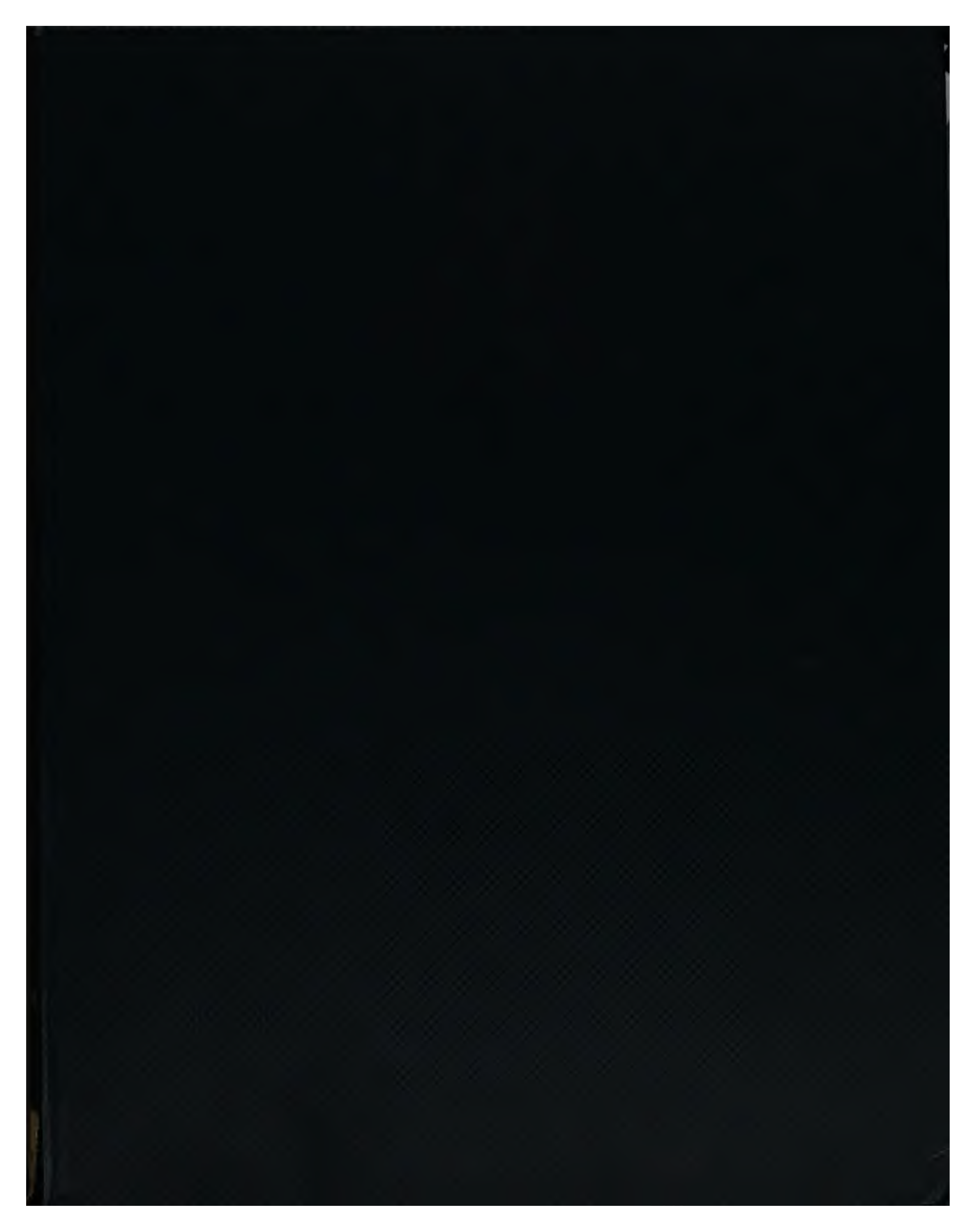






ERIDANUS:

RIVER AND CONSTELLATION.

A STUDY OF THE ARCHAIC SOUTHERN ASTERISMS.

BY

ROBERT BROWN, JUN., F.S.A.

AUTHOR OF 'THE GREAT DIONYSIAK MYTH,' 'LANGUAGE, AND THEORIES OF ITS ORIGIN,'
'THE UNICORN,' 'THE LAW OF KOSMIC ORDER,' ETC.

'FLUVIORUM REX ERIDANUS.'

VERGIL.

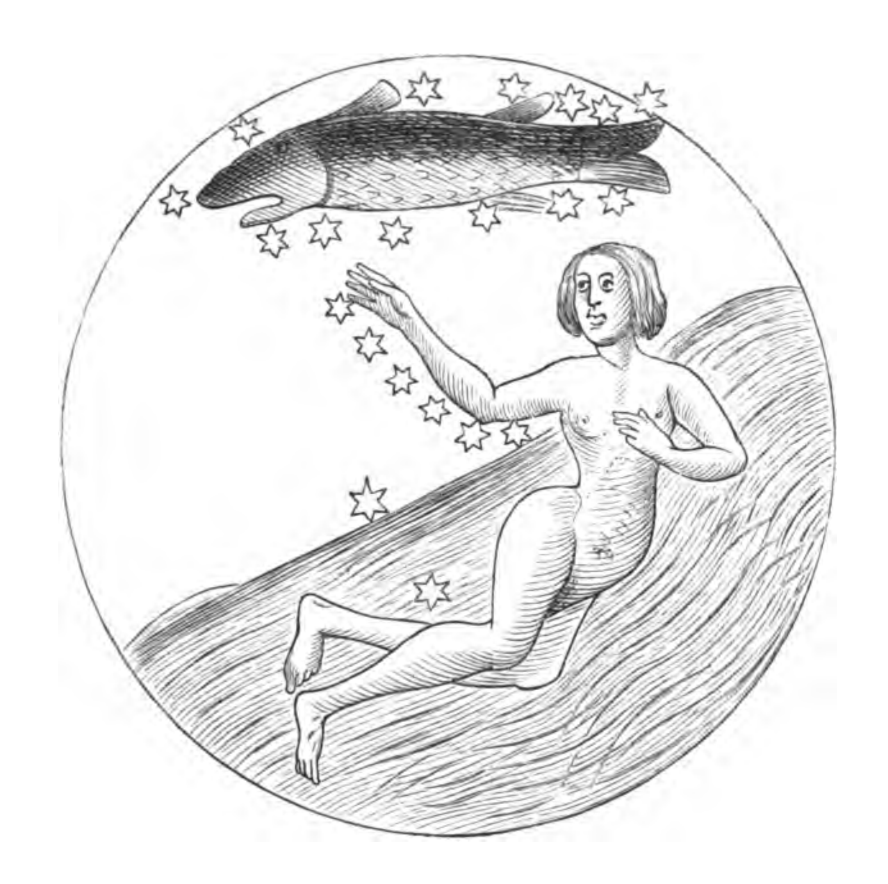
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Eridanus (from a German MS. of the Fifteenth Century).

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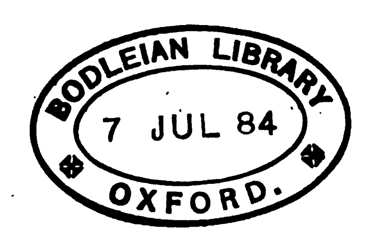
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INTRODUCTION.

THE pioneers of scientific knowledge move forwards so rapidly in this latter half of the nineteenth century that we are already beginning to forget a time by no means in the far distance of the past, when a reaction, the result of ancient errors, produced a school of writers who either absolutely denied that the East had ever exercised any influence upon Hellenik religion and mythology in their earlier stages, or else placed such influence at a minimum whose effect upon the whole was barely perceptible. It was, amongst other reasons, to combat this theory that I wrote *The Great Dionysiak Myth*; and, although I am deeply conscious of the imperfection of this work in some points of detail, I can yet say with much satisfaction that, whilst its main positions have never to my knowledge been refuted, they have obtained a very considerable acceptance, and that, in various instances, at the hands of former opponents of the theory. I took a particularly difficult mythological personage—Dionysos—and subjected the concept to an analysis as far exhaustive as a solitary student, also engaged in other occupations, could make it. I considered the god as he appears in Homerik, Hesiodik, Orphik, and lyric poetry; in Herodotos and Aristophanes, in the Attik tragedians, in the cult of Hellas generally, and in art. As the name and names of a divinity are of supreme importance in the explication of the leading idea which he embodies, I subjected Dionysiak nomenclature, both personal and connected, to a careful examination, giving special treatment to the protagonistic phases of the god; and ended the second volume of the work with an account

of the introduction of his cult into Hellas, and a sketch of his position in the Phoenician Outer-world.

I intended to complete the book in a third volume, which was to contain chapters on the archaic Kemic (Egyptian), Iranic, Vedic, Norse, Kaldean, and Akkadian solar-cults ; on the basis and result of solar religious thought, and on the ultimate aspects of the myth. But our knowledge at present, so far as Euphratean regions are concerned, is in too transitional a state to render such an attempt advisable. We learn almost daily ; and after a time there will come a pause when results can be advantageously summarized. Meanwhile I have dealt with the investigation in a preliminary way by tentative monographs, which, when recast so far as may be necessary, will supply the basis of future presentation of the subject. Thus I treated of the archaic solar-cult of Egypt in the *Theological Review* (Oct. 1878–Jan. 1879) ; of the Iranic and Vedic solar-cults in a *brochure* entitled, *The Religion of Zoroaster Considered in Connexion with Archaic Monotheism* ; and of the Norse solar-cult in *The Religion and Mythology of the Aryans of Northern Europe.* A sound position in connexion with linguistic science being a paramount necessity in all such inquiries, I endeavoured to set forth my views on the matter in *Language, and Theories of its Origin*, an essay which has been received most favourably by very high authorities both in this country and on the Continent.

The sun, moon, and stars form a kind of mythological triad ; and, having dealt with the first of these at considerable length in the person of the solar Dionysos, I naturally passed on to the consideration of the moon, Lunus-Luna ; but in so doing endeavoured to strike out a somewhat fresh view, and, in the words of one of my critics, 'to impress heraldry into the service of mythology.' This ancient and valuable scienee needs now no word of apology on its behalf, and possesses many special and able exponents ; but its importance is, I think, greatly augmented when it is proved to have been the faithful custodian of very archaic and widely spread ideas ; and in this aspect, one which I have endeavoured to illustrate in *The Unicorn*, even the psychologist may find many of its quaint figures deserving of his serious attention. The lunar Unicorn has indeed had a remarkable career from the Euphrates Valley to its present place as the Sinister Supporter of the Royal Arms of Great Britain ; and in the same manner the

Lion, Gryphon, Dolphin (the head of fish in heraldry), and Phoenix owe their heraldic prominence to the circumstance of their having been solar emblems in earlier ages.

From the moon to the stars is a natural transition, and on the threshold of stellar inquiry we are at once confronted by the *crux* of ages: What was (not what might have been) the origin of the constellation-figures? Until this enigma is solved the sky will remain a riddle to us. Now, Assyriology—that eminent triumph of our time—has revealed the fact that the Euphrates Valley is the earliest known home, if not actually the earliest home, of the Twelve Signs of the Zodiac. Here, then, we at once obtain the special local colouring, whilst by the aid of Comparative Mythology we may reasonably expect to recover the general outline of human idea on the matter. In a recent monograph, *The Law of Kosmic Order*, I have treated of sun, moon, and stars in the character of time-markers and makers; and have also particularly considered the original (pre-constellational) character of the concepts now embodied in the familiar yet archaic Zodiacal Signs. The course of man's thought, here as elsewhere, is from the simple to the complicated, from the obvious to the occult; and the present *brochure* pursues this investigation into the Extra-zodiacal Signs, dealing more especially with the southern constellations, and particularly with the obscure and difficult *Eridanus*. It is impossible to thoroughly understand solar mythology without having an equal comprehension of lunar and stellar mythology.

Of Euphratean astronomy and astrology, at present, we know much and yet little; and a few years may probably vastly increase our acquaintance with the subject. It is greatly to be regretted that, if in the matter of exploration Government assistance is impossible (which in this country is probably the case), private munificence should not supply the want. A comparatively small sum judiciously expended in the plains of Babylonia might be reasonably expected to produce results of the highest interest to the whole civilized world. Thanks to the illustrious band of Assyriologists—English, French, and German—and, in this country, to the efforts of the Society of Biblical Archaeology, much has been done; yet how little compared with what still remains to be accomplished!

I would ask the reader to consider the theory, arguments, and evidence set forth in the following pages in connexion with what I have already written on

the subject, in order both that my standpoint may be more intelligible, and also that my views may have any weight to which they are fairly entitled by virtue of the combined facts of the case.

There is one off-hand way of dealing with the origin of the constellation figures which it may perhaps be as well to dispose of in this place. It is often said that they are simply the result of fancy ; that is to say, that a resemblance, however fanciful, was actually discovered between natural stellar arrangement and the imaginary figures of the Signs. Of course this is a mere assertion, incapable of proof, and might well therefore stand aside as an unverified possibility. But, as a fact, there is about the same amount of direct imitation amongst the constellation-figures as there is in human speech. Crowns and Triangles exactly correspond with such words as the Egyptian *aua* (ox), *ba* (ram), and *miau* (cat) ; and further, in the heavens as in language, there is a considerable amount of indirect imitation—that is, such imitation as would not necessarily be recognized by an intelligent observer. Thus, it may please one nation to call some particular stars a Wain, whilst another may choose to describe them as a Bear, or a Bier ; and in either case there is a certain occult resemblance. But no one who has carefully examined the stars in the majority of the Signs can for a moment believe that, on the whole, special stars in the first instance suggested the now familiar figures ; although it is perfectly true that when a particular figure was placed in the heavens the special stars were generally accommodated to its parts. The fact is that every important and archaic constellation had a pre-constellational history, being the embodiment of an already familiar mythical idea connected either with sun, moon, dawn, light, darkness, cloud, storm, tempest, or chaos. In the progress of astronomy a myth of the simpler nature kind was not translated to the heavens, for it was there already ; but was stereotyped in the stars of a particular asterism. That this was the case with the Zodiacal Signs, I have already shown in *The Law of Kosmic Order*, and the same principle will equally hold good with the Extra-zodiacal Signs. Hence it follows that a few extremely simple ideas, manipulated by the human mind in accordance with the Law of Reduplication, have produced a most complex and apparently inexplicable result. It further follows that many constellations are merely variant phases of the same phenomenon. Thus, to take the usual protagonist—the Sun—*Aquarius*, *Ara*,

Argo, *Aries*, *Auriga*, *Canis Major*, *Canis Minor*, *Capricornus*, *Centaurus*, *Delphinus*, *Hercules*, *Leo*, *Ophiuchus*, *Orion*, *Perseus*, *Pisces*, *Piscis*, *Sagitta*, *Sagittarius*, and one of the *Twins* are all solar reduplications; and yet the Sun did not monopolize the Signs to the extent that his famous emblem the Lion monopolized armorial bearings at one time. 'It may be a matter of some surprise,' says Planché, 'to learn that in the twelfth century but one beast is to be seen on the shields of any of the great Anglo-Norman nobility; that one being a Lion. The Earls of Arundel, Lincoln, Leicester, Shrewsbury, Pembroke, Salisbury, and Hereford all bear Lions.' In the abstract it was far more improbable that the whole of these persons should adopt this one emblem than that the sun, by far the most important object in nature, should in his varied aspects occupy so much of the thoughts of archaic man.

This result of an investigation of the constellation-figures exactly agrees with the result of the investigation of pantheons generally. Thus in the Vedic scheme we meet with the solar protagonist as Aryaman, Indra, Mitra, Pushan, Tvashtri, Savitri, Surya, Vishnu, Vivasvât, Yama, and other personages; the heaven-expanse, Aditi, Dyaus, Varuna; the dawn, Ushas; the wind, Vayu, and the Maruts; storm and darkness demons; and below, the earth, Prithivi.

In the Norse scheme we have the sun as Baldr, Bragi, Freyr, Heimdallr, Hermodhr, Odhinn (also aërial), Thorr, Tyr, Vali, and other personages; the wind, Hoenr; below, the earth, Freyia, Frigga, and Iduna, and the sea, Oegir; storm, Angurbodha, Beli, Egdir, Hraesvelgr, Midhgardhsormr (afterwards the sea), etc.; and darkness, Fenrir, Garmr, Grabakr, Hel, Hodhr, Managarmr, Nidhoggr, etc.

In Kem (Kam, Kamit, Khemi, 'the Black' Land), the solar power appears as Amen-ra, Anhar, Asar (Osiris), Aten (cf. Adon), Atum, Bes, Har (Horos), Har-oer, Haremakhu, Imhotep, Khem, Khnum, Menhi, Mentu, Nekheb (Nishem), Ptah, Ra, Sati, Sebak, Sekhet, Shu, Tefnut, Uati, and other personages; the dawn, including the abode whence the sun comes and whither it goes, is spoken of as As (Isis), Hathar, Mut, Nat, Nebtha, and Selk; heaven is Nu and Nut; darkness appears as Anpu, Apap, Apet, Nubti, Set (according to Mr. Renouf), and Taur; the earth beneath is Seb, the time-marker.

Local features and climate and the particular national mind are the chief

variant factors in pantheons; and this last element will greatly affect the manner in which even so remarkable an object as the moon is regarded. The moon-god or goddess may be of high importance—as Aku, Zuen, Sin, Khons, or Tehuti (Thoth); or, more frequently, comparatively insignificant.

As the careless often draw most unwarrantable deductions from a mere presentation of facts, let me add that I neither assert nor imply that Religion sprang from man's unaided cogitations upon himself and the material world.

Since writing the following pages I have been glad to observe that the connexion which I supposed to exist between the Euphrates and the Okeanos-stream is borne out by the monuments; these speak of 'the Snake-river' (cf. the Midhgardhsormr, Jormungurdr, Weltumspannr), 'the River of the Great Deep,' and 'the Encircling River of the Snake-god of the Tree of Life.' Professor Sayce observes: 'In early Accadian mythology the mouth of the Euphrates was identified with the river of death. The Okeanos of Homer had, I believe, its origin in this Accadian river, which coiled itself round the world. . . . The Euphrates was a representative of the heavenly river which surrounded the earth.'

BARTON-UPON-HUMBER:

March, 1883.

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APPENDICES.

LIST OF ILLUSTRATIONS.

ABBREVIATIONS.

BROWN, R. Jr., *G. D. M.—The Great Dionysiak Myth.* (London: Longmans, 1877–8).

———— *R. Z.—The Religion of Zoroaster Considered in Connexion with Archaic Monotheism.* (London: D. Bogue, 1879).

———— *R. M. A.—The Religion and Mythology of the Aryans of Northern Europe.* (London: E. Stanford, 1880).

———— *U.—The Unicorn: a Mythological Investigation.* (London: Longmans, 1881).

———— *L. K. O.—The Law of Kosmic Order.* (London: Longmans, 1882).

SMITH, GEO., *C. A. G.—Chaldean Account of Genesis,* 2nd edit. By Prof. Sayce.

R. P.—Records of the Past. (London: Bagster & Sons, 1873–81).

T.—Transactions of the Society of Biblical Archaeology.

ERIDANUS:

RIVER AND CONSTELLATION.

I.

THE constellation *Eridanus*, one of the Southern Signs, extends from *Rigel*, a star of the first magnitude in *Orion*, up to and including *Achernar* (*α Eridani*), a similar star near the extremity of the modern constellation *Phoenix*. It is a long and winding stream, but, with the exception named, contains only stars of the third and smaller magnitudes. The adjoining and ancient constellations are *Orion*, *Taurus*, *Cetus*, and *Lepus*, the remainder of the asterism being bounded by star-groups of comparatively unimportant character, and bearing modern names, most of which are alike arbitrary and tasteless and unconnected with an archaic investigation. 'Fugiunt sine nomine turba.' To the ancient classical astronomer the stream of the heavenly *Eridanus* may be said to have run as far as the star *θ* and there to have been lost in space, like those terrestrial rivers which at some point conceal their waters and become telluric.[1] Ptolemy terms *Eridanus* the asterism of the *River*, and the constellation has occasionally been 'represented as a reclining female, and in the ancient manuscript of Cicero's Aratus it is made to assume the form of a river-god, with his urn and other aquatic apparatus.'[2]

Eudoxos of Cnidos, in the fourth century B.C., who regarded the star-lighted splendour of space as a mirror wherein the astronomic mind could never gaze enough, was perhaps the first Hellenik constructor of a regular astral atlas on

[1] 'Eridanus of unknown extension southwards' (R. A. Proctor).

[2] Dunkin, *The Midnight Sky*, 179; vide *inf.* Appendix IV.

uranographical principles; and his *Phainomena*, versified in accordance with the wish of Antigonos Gonatas, reappears in the familiar poem of the same name composed by Aratos, B.C. 270. The Southern Signs in the uranographic chart of Eudoxos were:—

Oriôn. The Giant-hunter. So the star *Betelgeux* in this constellation is *Ibt-al-Jauza* ('the Giant's Shoulder').

Kuôn. The Dog. At the feet of *Orion*.

Lagôs. The Hare. Beneath *Orion*.

Argô. The Ship. *Navis*, *Navis Argo*. Its head is near the tail of *Kuôn*. It is now divided into *Carina*, the Keel; *Malus*, the Mast; *Puppis*, the Poop; and *Vela*, the Sails.

Kêtos. The Sea-monster, the *Pistrix* of Cicero (Gk. *pristis*, a 'spouter'), akin to the Physeter,[1] and often called the Whale. This creature advances towards *Andromedê* in the northern heavens; she, however, fears him not, as she is defended by *Perseus*.

Eridanos Potamos. The *River Eridanus*, called sometimes simply the River, *Amnis*, *Fluvius*. 'Fluvius subter cetum collocatus est.'[2] This River was composed of two branches, which joined at a certain place, whence a united stream ran onwards to *Achernar*, a feature in the constellation worthy of attention. Thus Manilius:—

> 'Qua fusa feruntur
> Flexa per ingentes stellarum flumina gyros.
> Ulterius capiti coniungit Aquarius undas
> Amnis; et in medium coëunt et sidera miscent.'[3]

The winding, circling, bending course of the River is another very noticeable feature in the descriptions. The two branches of the stream, one starting from *Rigel*, 'ad quem sinister Orionis pes extenditur,' and the other being the outpourings of the Urn of Aquarius, are well shown in the Farnese Globe. *Cetus*, drawn with much spirit and an excellent representative of the class Tannîn,[4] here wallows in the midst of the streams of *Eridanus* like the Pharaoh-

[1] Cf. the account given by Rabelais of the Physeter: 'The physetere, coming between the ships and the gallions, threw water by whole tuns upon them, as if it had been the catadupes of the Nile in Ethiopia' (Rabelais, iv. 34, ap. Ozell, edit. 1750). The point is perhaps of importance in the inquiry respecting the nature of the original Kêtos.

[2] *Arati Phainomenôn Fragmentum Germanico Caesare interprete*, edit. 1535, p. 180. There are about forty ancient Greek commentators on Aratos, whilst Cicero and Germanicus translated the *Phainomena* into Latin.

[3] *Astron.* i. 446-9.

[4] *I.e.* 'the Extended,' the 'Great Whales' of the A.V. in *Genesis*, i. 21.

Tannîn, according to Ezekiel's simile, in the Nile,[1] though it is more correct to place the Sea-monster at one side of the River as is usually done.

Ichthys. The (Southern) Fish, *Notius Piscis, Piscis Australis.* 'Piscis Magnus cuius nepotes dicuntur pisces qui in circulo zodiaco constituti sunt.'

Thytêrion (= *thysiasterion*). The Altar. Called also *Thuribulum, Sacrarius,* and *Pharos.* 'Sequitur scorpionis caudam.'

Kentauros. The Centaur; said to be under *Skorpios.* It included *Lupus* and *Crux Australis.*

Hydra. The Water-snake or Sea-serpent. Its head is under *Karkinos* (*Cancer*), and its tail above *Kentauros*; *Kratêr* is about the middle of its body, and *Korax* is near its tail. These two latter Signs are sometimes treated as being scarcely distinct from *Hydra.* 'In hac corvus insidere et crater positus existimatur.'[2]

Kratêr. The Cup or Mixing-bowl.

Korax. The Raven, the bird alike of sun and storm.

Prokyôn. The Lesser Dog. Strictly speaking a single star (α *Canis Minoris*), which rose *before* the Dog (star); ultimately by analogy itself described as a dog. *Sirius* (α Canis) and *Prokyôn* are sometimes known as the Dogs of Oriôn.

Kuklos. Corona Australis, sometimes called *Corolla.* A circle of stars under *Toxotês* (*Sagittarius*).[3] Noticed, but unnamed by Aratos.

II.

Aratos was a poet, not an astronomer; but one of the most interesting and important points in connexion with his work is that the archaic statements it contains, the real value of which was probably unknown to him, were at one time correct. As Mr. Proctor well remarks:—'Grotius erred in asserting that the phenomena of Aratus can be assigned to no fixed epoch and to no fixed place. With the exception of a few which Aratus inserted from his own unskilful observations, all the phenomena will be found, when due correction has been made for the effects of precession, to correspond very satisfactorily with a latitude between 38° and 41° and an epoch about 4,000 years ago.' And this circumstance affords the most positive proof not merely of the high antiquity of comparatively developed astronomical observation, but also of the significant

[1] Ezekiel, xxxii. 2.

[2] Hyginus, *Poet. Astron.* ii. In voc. *Hydra.*

[3] As to Kuklos, vide *inf.* sect. XXIX., in voc. *Corona Borealis.*

fact that the present constellational arrangement of the heavens is not Hellenik in origin. Men like Kleostratos[1] of Tenedos and Oinopidês[2] of Chios, at a time when the Hellenik mind was stirring in a scientific direction, introduced from Western Asia both astronomic facts and a connected nomenclature; and as the history of archaic Asia Minor is yet, notwithstanding recent discoveries respecting the Hittites, in the main unknown, a dark gap intervenes between the lamp of Euphratean knowledge and its reduplication in the eastern isles of the Aigaiôn. Elsewhere I have considered the origin of the Signs of the Zodiac, and basing my investigation upon the results of the invaluable labours of Professor Sayce, have shown alike the region where the *Ram* and his fellows first appear in the dawn of history, and the *rationale* which underlies their apparently incomprehensible cincture (διάζωσις) of figures.[3] This process has incidentally destroyed much contrary theory, to which no further reference need be made; and the object of the present *brochure* is to extend the inquiry specially to one and generally to others of the Southern *Sidera extra Zodiacum*. For the time has arrived when by the aid of a vastly augmented historical and mythological knowledge such a research can be entered into with a fair prospect of considerable success; and it is also part of a larger investigation, *i.e.*, How did primitive man work out the primary concept of time?[4]

In considering the origin of any particular constellation-figure the Hellenik legends connected with it must be carefully analysed and correctly appreciated, since they generally contain very important evidence; and it must also be remembered that in Aryan regions Aryan names will, as of course, be frequently imposed upon non-Aryan personages and concepts. The pre-constellational history (if I may so express it) of the asterisms is what must be ascertained; for when the constellations were formed and astronomy became a science, however lowly in character, mythology proper expired. Where uranography is once firmly established, statements such as that the *Sea-monster* advances towards *Andromedê*, or that the *Bear* watches *Oriôn*, are merely anthropomorphic tropes essentially belonging to a comparatively fully-developed state of ideas, a stage which corresponds with the formal pantheonization of divinities.

[1] 'Signa in eo [the Zodiac] Cleostratus [who 'lived sometime between B.C. 548 and 432'], et prima Arietis ac Sagittarii' (Pliny, *Hist. Nat.* ii. 6).

[2] Oinopidês *εὗρε πρῶτος τὴν τοῦ ζωδιακοῦ διάζωσιν* (Eudêmos, *Astrologikê Historia*, ap. Theôn Smernaios, xl.). The loss of this work of Eudêmos, who was a pupil of Aristotle, is greatly to be regretted.

[3] Vide R. B. Jr., *On the Origin of the Signs of the Zodiac*, in *Archaeologia*, xlvii. Part 2; *L. K. O.*

[4] Vide R. B. Jr., *U.*; *L. K. O.* secs. iii.–v.

III.

The constellations, as generally accepted in classical antiquity, amount to forty-eight, an artificial number preserved by Hipparchos, Manilios, Ptolemy, and others, and connected in later times with the division of each zodiacal Sign into three parts—the doctrine of the Decans.[1] With each Decan or space of 10° was connected some extra-zodiacal constellation which rose or set about the same time, and thence was ultimately known as a *paranatellon*. But whilst there is an almost absolute agreement in the number of the constellations universally accepted, there is a certain amount of variance in the names which make up the list. Thus, in the system of Aratos, *Ophis* is part of *Ophiouchos* and *Thêrion* of *Kentauros*; whilst *Equuleus*, the Little Horse, is unknown. In ancient times also as well as in modern, attempts were made after the regular formation of the canon to add to it, the most successful being that of Kônôn of Samos with the constellation *Coma Berenices*.[2] Another quondam Sign, 'Item quem sub Divo Augusto cognominavere *Caesaris Thronon*,'[3] was not so fortunate. There have been many others of a more or less ephemeral character, for Pliny speaks of the 'vastitas caeli imensa, discreta altitudine in duo atque septuaginta signa;'[4] and, similarly, Minsheu defines an 'asterisme' as a 'configuration of fixed starres, an imaginarie forme devised by the astrologers, the better to conceive and distinguish asunder the fixed starres, of which are reckoned eighty-four in all, besides a few found out of late by the discoverers of the South Pole.'[5] Amongst these Signs, which, in the interval between Pliny and Queen Elizabeth, seem to have been increased by twelve, were probably included various well-known parts of several of the ordinary Signs, some of these latter being probably also merely individual stars; for the term *sign*, like its Assyrian equivalent *kakkabu*, at one time is applied to a

[1] 'Trigintasex decani omnem zodiaci posident circulū: ac per 12 signorum numerū deorum, seu decanorum haec multitudo diuiditur' (Julius Firmicus, iv. 16). Firmicus has preserved the Helleniko-Kemic names of the Genii of the Decans.

[2] Vide Kallimachos, ap. Catullus, lxvii.; Theôn in Aratos, *Phainom.* 146; Strabo, I. i. 6; Hyginus, *Poet. Astron.*, in voc. *Leo*; Pliny, *Hist. Nat.* ii. 71: 'Quem vocant Berenicis crinem.' 'The name of this constellation has been more permanent than the appellation of *Medicean stars*, which Galileo gave to the satellites of Jupiter, and of *Georgium Sidus*, which Herschel gave to the sixth planet discovered by him. The fame of this lock of hair has likewise been perpetuated in the word *vernice*, *vernis*, and *varnish*, which alludes to the amber colour of the queen's beautiful tresses' (Sir G. C. Lewis, *Astron. of the Ancients*, 197).

[3] Pliny, *Hist. Nat.* ii. 71.

[4] *Ibid.* 41.

[5] *Dictionary*, 1625, in voc. *Asterisme*. The 'few found out of late,' to which Minsheu alludes, are those formed by Bayer about 1603, namely, *Apus* (the Bird of Paradise), *Chamaeleon* (the Chameleon), *Dorado* (the Swordfish), *Grus* (the Crane), *Hydrus* (the Water-snake), *Indus* (the Indian), *Musca* (the Fly), *Pavo* (the Peacock), *Phoenix*, *Toucan*, *Piscis Volans* (the Flying-fish), and *Triangulum* (the Southern Triangle).

single star, and at another to an asterism. Thus amongst the seventy-two constellations of Pliny may have been comprised :—

Arcturus [1] (*a Boötis*).

Aix. Capra or *Capella*, the Goat (*a Aurigae*).

Eriphoi. Hoedi,[2] the Kids.

The *Hyades*.[3]

The *Pleïades*.[4]

The *Head of Medusa*.[5] Algol ('The Ghoul').

The *Club of Hercules* (Heraklês).[6]

The *Sickle*. In *Leo*.

The *Sword of Orion*.

The *Shield of Orion*.

Sirius (*a Canis*).

Prokyôn (*a Canis Minoris*).

It is a matter of curious inquiry what were the eighty-four constellations of Minsheu, for the changes proposed in the futile attempt made in the eighth century to Christianize the heavens by introducing the Twelve Apostles into the Zodiac, and turning the *Triangle* into *S. Peter's Mitre*, and the *Great Bear* into his *Bark*, etc., were of a substitutional, not of an additional, character. In a German MS.[7] in my possession belonging to the latter part of the fifteenth

[1] This noble star, fourth of those of the first magnitude, *Arktouros* (vide *inf.* sec. IV. In voc. *Kynosoura*), the Bearward, being the protagonist of the north, is naturally the guardian of this portion of the starry host; and so, similarly, in Euphratean regions was called 'the shepherd of the heavenly flock' (vide Prof. Sayce, *C. A. G.* 64, note).

[2] Manilius, in his list of the constellations, includes *Hoedi*, *Capella*, the *Pleïades*, and the *Hyades*, distinguishing the two latter groups from *Taurus*.

[3] The *Hyades* are mentioned independently, and not as forming part of any constellation, both by Homer (*Il.* xviii. 485. I use the name 'Homer' in a covering sense, and without intending to commit myself to any special view in the Homerik controversy) and by Hesiod (*Erga*, 613). Husbandmen should plough when they set. Being generally accompanied by rainy weather, they were 'pluvias Hyadas' (Vergil, *Aen.* iii. 516), and 'tristes Hyadas' (Horace, *Car.* I. iii. 14). So the Chinese poet sings:

> 'The moon wades through the Hyads bright,
> Foretelling heavier rain'

(Ap. Legge, *She King*, 282).

[4] The *Pleïades* are mentioned in the same way as the *Hyades* both by Homer (*Il.* xviii. 486; *Od.* v. 272) and by Hesiod (*Erga*, 381). Husbandmen should begin the harvest when they rise and plough when they set. Hesiod adds other particulars about them, and the cluster is of great importance in archaic stellar investigation.

[5] As to the original meaning of the myth of Perseus and Medousa, vide R. B. Jr., *U.*, sec. VII. The hero, Perseus, has a double aspect—(1) Aryan, and (2) Non-Aryan. Thus, 'the statue of Perseus, erected just outside the city of Ikonium, . . . seems to have been an old Hittite monument' (Prof. Sayce, in *T.* vii. 271).

[6] The original figure of the constellation *Heraklês-Hercules* was *Engonasin*, 'the Kneeler,' called by Ovid *Genunixus*, by Manilius *Ingenidus*—'Species genibus sibi conscia causae' (*Astron.* i. 322)—by Vitruvius *Ingeniculatus*, and by Firmicus *Ingeniculus* (vide secs. VII., XXIX.).

[7] For a further description of this MS., and representations of some special constellation-figures in it, vide *Archaeologia*, xlvii. Part 2.

century, and containing coloured illustrations of the asterisms, the customary number of the extra-zodiacal constellations is preserved, but by a very unusual arrangement. *Serpens* is included in *Serpentarius* (as in the system of Aratos), *Sagitta* in *Aquila*, *Eridanus* in *Cetus*, or rather perhaps *Cetus* in *Eridanus*, *Lupus* in *Centaurus*, and *Corvus* and *Crater* in *Hydra*, whilst the *Corona Australis* is omitted. The gaps are supplied by—

1. Seven human figures, representing the *Pleïades*, the Dark Sister (Steropê) being smaller than the others, and wearing a dark head-dress.

2. *Vultur cadens*, an equivalent of *Sagitta*.

3. The figure of a man bearing some instrument and called *Joculator*.

4. The figure of an unarmed Centaur, not *Centaurus*, which is given as usual.

5. A combination styled *Demon Meridianus* or *Demonius*, consisting of a female figure holding up an ellipse of stars, resembling representations of the *Circulus Lacteus*; in the background a male figure.

6. An unknown object, which appears to be an asterism near, or forming part of, *Sagittarius* and *Capricornus*.

7. A banner attached to a spear. Eight stars are marked in the drawing, and the combination is stated to be partly in *Leo* and partly in *Virgo*. The stars are correctly placed, one at the spear-point being *Regulus* (*α Leonis*); two on the upper part of the banner being two other bright stars in *Leo*, one of which is *Deneb*; and the five stars at the extremity of the banner being five stars in *Virgo*, one of which is *Spica* (*α Virginis*).

These interesting examples show that at times new combinations were formed out of the old.

Again, various alterations took place in the drawings of the figures of the constellations in ancient times; thus the *Parthenos* (*Virgo*) of Hipparchos was altered by Ptolemy, and in the *Krios* (*Aries*) of Hipparchos the star *Hamal* (*α Arietis*) was placed in one of the feet of the figure instead of, as now, in the head.

Lastly, it was not considered necessary to occupy the whole celestial space with constellation-figures, so that as late as A.D. 1690 room was found for *Monoceros* (the Unicorn) between the *Dogs*; and even in the Northern Hemisphere, the most thickly populated of the two, for *Leo Minor* (the Little Lion), *Lynx* (the Lynx), *Canes Venatici* (the Hunting-dogs), *Vulpes* or *Vulpecula* (the Fox), *Lacerta* (the Lizard), and *Camelopardus* or *Cameleopardalis* (the Giraffe). Strabo quotes the remark of Aratos that in his time numbers of stars were yet unnamed.

IV.

A glance at the ancient map of the heavens shows that the southern celestial hemisphere is comparatively unoccupied ; and, as of course, it has been remarked that the vast vacant space in the south indicates the fact that the original constellation-framers lived so far north of the equator that most of the unportioned area was invisible to them. Mr. Proctor has acutely drawn a further, and a very valuable deduction from this circumstance. He observes :—' The vacant space is markedly eccentric, and when we calculate back for the effects of precession in such sort as to make this space centric around the southern pole, we at once obtain the correct limits of latitude for the nation which invented the old constellations, and approximately the date to which the invention belongs.' This latitude and date I have already quoted,[1] and the circumstance is a valuable corroboration (if any be required) of the view which ascribes a very large portion of the ancient constellational arrangement of classical times to Euphratean[2] influence. Moreover, if, as now appears, the Signs of the Zodiac are of Akkadian origin, it is only reasonable to suppose *à priori* that some at least of the extra-zodiacal constellations are so also. Now, the Twelve Signs, still called by astrologers ' diurnal ' and ' nocturnal,' were in origin simply diurnal and nocturnal phases familiar to the mythological imagination, ideas which arose naturally and spontaneously in the mind, and on analysis they appear thus :—

I. Diurnal Signs.			II. Nocturnal Signs.		
1. The Ram-sun,	afterwards	*Aries*	1. The Moon-bull,	afterwards	*Taurus*
2. Sun and Moon,	„	*Gemini*	2. Darkness,	„	*Cancer*[4]
3. The Lion-sun,	„	*Leo*	3. The Planet Venus,	„	*Virgo*
4. The Holy-sun,	„	*Ara*[3]	4. Darkness,	„	*Scorpio*
5. The Archer-sun,	„	*Sagittarius*	5. The Sea-sun	„	*Capricornus*[5]
6. The Rain-giving-sun,		*Aquarius*	6. The Nocturnal-(fish-)sun,		*Pisces*[6]

That is to say, the Signs were reduplications and elaborations of simpler phenomena, worked out in accordance with that great Law of Reduplication which runs

[1] Vide *sup.* p. 3.

[2] I use this term as inclusive of the Kaldean, Babylonian, Assyrian, Sumerian, and Akkadian elements.

[3] With the Greeks, *Chelai*, 'the Claws' (of the Scorpion), and now *Libra*, a Sign said by Achilleus Tatios to be of Kemic origin (vide *T.* iii. 149).

[4] A reduplication of *Scorpio.*

[5] Hyperîôn. Cf. Shakspere :—

'Next day after dawn,
Doth rise and help Hyperion to his horse'

(*Henry V.*, act iv. sc. 1). So the goat rampant is styled heraldically *clymant* (vide R. B. Jr., *U.* 19, note 6).

[6] Originally *Piscis.* For proofs and detail respecting the Zodiacal Signs, vide R. B. Jr., *L. K. O.*

throughout archaic thought. I will next, ere particularly considering the *River*, briefly survey its companion Signs, a process which will of course assist in determining the real origin of the former. In the comparatively unoccupied southern skies we find besides *Eridanus*, and not to mention *Corona Australis*, a group consisting of *Orion*, the *Dogs*, and the *Hare*; the *Ship*, the *Sea-monster*, the *Fish*, the *Altar*, the *Centaur*, and the *Sea-Serpent*, with the *Cup* and the *Crow* (or *Raven*) on its back.

Orion and his Dogs.—The Hunter-sun, subsequently reduplicated in a brilliant constellation. *Σθένος* [an epithet especially applied to bodily strength] *'Ωρίωνος*[1] is evidently a proverbial expression. According to Homer, *Arktos* (the Bear), the head of the Northern Constellations, watches *Orion*, who is the head of the Southern. On the shield of Achilleus were represented 'all the constellations (*τείρεα*) with which the heaven is crowned,' *e.g.* (says the poet) the *Pleïades*, *Hyades*, *Orion*, *Arktos*, etc. That the four names do not exhaust the Homerik list, but are given as protagonistic and *exempli gratia*, is clear both from the previous line, and again from the parallel passage in the *Odyssey*, where *Boötes* is introduced.[2] It is now certain that Tammuz, the Akkadian Dumuzi, or 'Only-son,' in his stellar phase was identical with the constellational Orion. As M. Lenormant observes:—'Un fragment de planisphère céleste, qui fait partie des nouvelles acquisitions du Musée Britannique, établirait que les Chaldéo-Assyriens auraient appelé Orion Doumouzi ou Tammouz.'[3] Now Tammuz is in origin identical with Merodach (Maruduku, 'the Brilliance-of-the-Sun'), the two being merely variant phases of the solar photosphere. Merodach, 'the Hero,' is provided with 'four divine dogs,' Ukkumu ('Despoiler'), Akkulu ('Devourer'), Iksuda ('Capturer'), and Iltebu ('Carrier-away'); and this number is not accidental, but represents the flow of light from the Diurnal-sun to the four quarters; so that similarly in the Aryan myth, the Vedic solar Yama is attended by two dogs who guard the way to the Underworld, and are four-eyed. Hence they become monsters in form and chthonian in character, and reappear as Kerberos, the Vedic Sarvari ('Darkness-of-Night').[4] Such, however, is not the fate of the dogs of the hunter Adon-Tammuz; but when he becomes constellational they pass through a corresponding avatar and become stellar. Now there are four stars of the first

[1] *Il.* xviii. 486; Hesiod, *Erga*, 613, 617.

[2] *Od.* v. 272.

[3] *Les Origines*, i. 247, note 1. Vide also Lenormant, *Il Mito di Adone-Tammuz nei Documenti Cuneiformi*.

[4] Minsheu, with amusingly perverted etymological ingenuity, derives Cerb-erus from Heb., 'chelebh erets, *canis terrae*, vel canis qui sub terra est.'

magnitude in this part of the heavens—namely, *Sirius*, *Procyon*, *Rigel*, and *Betelgeux*. *Sirius* ('the Scorching'), the Tistar of the Persians [1] and stellar protagonist,[2] a reduplication of Surya [3] ('the Shining'), and the Kuôn Seirios of Aïschylos [4] is expressly called by Homer 'the Dog of Oriôn.' The unhappy Priam beholds Achilleus :—

> *παμφαίνονθ' ὥς τ' ἀστέρ', ἐπεσσύμενον πεδίοιο,*
> *ὅς ῥά τ' ὀπώρης εἶσιν, ἀρίζηλοι δέ οἱ αὐγαὶ*
> *φαίνονται πολλοῖσι μετ' ἀστράσι νυκτὸς ἀμολγῷ·*
> *ὅν τε κύν' Ὠρίωνος ἐπίκλησιν καλέουσιν.*[5]

Such is the origin of the term 'Dog-star' as applied to this most glorious of suns, a term connected through synchronous occurrence with heat, madness, and Dies Caniculares ; so that *Sirius*, the Set-Sothis of Kem, was regarded as an ill-omened star. 'Who knoweth not,' says Pliny, 'that when the Dog-star ariseth, the Heat of the Sun is fiery and burning ? the effects of which Star are felt exceeding much upon the Earth. The Seas at his rising do rage, the Wines in cellars are troubled, standing Waters are moved. A wild beast there is in Egypt, called *Orix*, which the Egyptians say doth stand full against the Dog-star when it riseth, looking wistly upon it, and testifieth by sneezing, a kind of Worship. As for Dogs, no Man doubteth but all the Time of the canicular Days they are most ready to run mad.' [6]

Originally the star *Sirius* is the Greater Dog, and subsequently a constellation is so named ; and, similarly, originally the Lesser Dog is a star,—*Prokyôn*, the leader of the pack, called also in Hellenik legend Maira ('the Glistening') ; but, subsequently, a constellation of the name is formed, and these are the archaic *Canes Venatici*. A particular star (or constellation) was called amongst the Assyrians 'the Star of the Dog,' and its appearance was supposed to show that 'forces are in the country.' [7] The Dog is also depicted amongst the Babylonian constellations.[8]

Lepus.—At the foot of *Orion* crouches *Lepus*, its single brightest star being

[1] Vide R. B. Jr., *U.*, sec. ix.

[2] Vide Plutarch, *Peri Is.* xlvii.

[3] Helios-Sol. Cf. Hesychios, in voc. Σείριος. ὁ ἥλιος. καὶ ὁ τοῦ κυνὸς ἀστήρ. Diodoros states that 'some of the ancient Hellenik mythologists named Osiris [the Sun-god] Dionysos, and by a slight change of name, Seirios' (Diod. i. 11). Archilochos and Hesiod (*Erga*, 415) use Seirios as the equivalent of Helios. Asar (Osiris) perhaps means 'Son-of-the-earth.'

[4] *Agamemnôn*, 967.

[5] *Il.* xxii. 26–9. In *Il.* v. 5–6 *Sirius* is referred to as 'the star of the later summer, which shines with special brightness when it has been bathed in the ocean.'

[6] *H. N.* ii. 40, ap. Wernerian Club's translation.

[7] Prof. Sayce in *T.* iii. 176.

[8] Vide *inf.* sec. XXVI. For further consideration of the Oriôn-myth, vide R. B. Jr., *G. D. M.* ii. 270, *et seq.*

but of the third magnitude. The ancients were at a loss to understand why the mighty hunter should be thought to pursue the most timid of creatures; but zoological mythology has solved the problem. 'The mythical hare is undoubtedly the moon,'[1] and the pursuit of Oriôn is an instance of the moon-flight as the myth of the Unicorn is of the sun-flight. I am fortunately able to give two instances of the Euphratean connexion between *Lepus* and the moon. A cylinder[2] shows the following design:—Above a kind of high pillar-altar is the crescent-moon with the sun in its arms (a combination of which Lajard supplies some twenty-five instances); on each side of the pillar is an ibex head, the horns close together, thus approximating to the unicorn type, an armless winged and tailed human figure, and a hare near the base. To the left, behind one of the semi-human figures, is the solar star, beneath which, their heads turned from the lunar group, a ram or ibex with horns separate and a lion. The scene depicted is the nocturnal sky, occupied by the Horned-hare-moon, who is guarded by Genii. The Ram and Lion, solar and diurnal types, are turned away, *i.e.*, absent; and the unborn, infant Sun is watched over by the Moon.

A Syrian agate seal[3] shows the crescent-moon, stars, and several constellation figures including a hare.

V.

Argo.—The Ship has an Aryan name—'the Bright.' 'The *root ark*, "to be bright," is the sire of a whole tribe of words which have made myths, such as Arkas, Argos, Arjunî-Argynnis, etc.'[4] The Bears (*Arktoi*) are 'the Bright-ones,' and the Arkadian nymph Kallistô changed into a she-bear, painted by Polygnotos in the Leschê at Delphoi as wearing a bear-skin,[5] and connected in legend with *Ursa Major*, is another instance of this twofold signification. The Moon herself is Ursula ('the Little-bright-one'), the goddess of the Horselberg and Ercildoune, and the Two Bears—*Helikê* and *Kynosoura* ('Trail-of-light'),[6] as Aratos calls

[1] Gubernatis, *Zoological Mythology*, ii. 76. Should the reader entertain any doubt on this point, it will be dispelled by the mass of evidence accumulated by the Italian *savant*, who remarks: 'The mythical hare and the moon are constantly identified. It is on this account that, in Pausanias, the moon-goddess instructs the exiles who are searching for a propitious place to found a city to build it in a myrtle-grove into which they should see a hare flee for refuge. The moon is the watcher of the sky, that is to say, she sleeps with her eyes open; so also does the hare, whence the *somnus leporinus* became a proverb. . . . The hare occurs again as the proverbial enemy of the [solar] lion, whence the proverb, "Mortuo leoni lepores insultant" or *saltant*: the moon jumps up when the sun dies' (*Ib.* 78).

[2] Lajard, *Culte de Mithra*, pl. lii. 6.

[3] Ib. pl. lviii. 5.

[4] R. B. Jr., *U.* 77.

[5] Paus. X. xxxi. 3.

[6] Vide Sir G. W. Cox, *Introd. to Myth. and Folk-lore*, 40, note 2.

them, are reduplications, the first of the moon and the second of the first. 'The Argo is divine. It was the work of a being akin to, if not identical with, Argos Panoptês,[1] the all-seeing. In its prow, Athênê, the dawn-goddess, herself places a piece of wood from the speaking oaks of Dodona, and the ship is thus endowed with the power of warning and guiding the chieftains who form its crew.'[2]

The Argô is a reduplication of the Sun considered as the solar boat or vessel. Thus in Kem-Ra ('the Maker'), the Sun-god, is the 'Lord of the boat and the barge;'[3] whilst the golden Phoenician Chrysôr 'was the first man who fared in ships;' and Melqarth, the solar Tyrian hero, sails to the farthest regions of the West.'[4] Apollôn is Delphinios, the Fish-sun, was the protector of the crew of the Argô, and leads the colonist across the sea, from whence the Oannês-sun (Hea-chan, 'Hea-the-fish') also called Ôdakôn (in Akkadian Udukana, 'the Lord-who-rises-high') rose, and whither at night he retired.[5] The solar Heraklês sails o'er the western ocean in the golden boat-cup of Hêlios; the solar Yama similarly 'departed to the mighty streams,'[6] and found out the way to the unseen world; and, lastly, the archaic Euphratean hero Izdubar, mourning the loss of his friend and smitten with the disease and weakness (the poisoned garment of Heraklês, the thorn in the foot of the solar lion) that attack the radiant hero at eventide, would fain cross the sea to be instructed and cured, as the blinded Oriôn receives his sight after passing through the waters. Weary wanderings over, Izdubar reaches the seaside and meets with a boatman called Lig-Hea ('the Dog of Hea'); and, as Hea is, amongst other phases, a solar divinity, 'the Dog of Hea'='the Dog of Oriôn,' so that the leading of the blinded Oriôn by Kedaliôn is a reduplication of the conducting of the feeble and leprous Izdubar by Lig-Hea. Kedaliôn, a name referring to one who has special charge of a corpse,[7] is a suitable appellation for the power which conducts the extinguished Sun through the dark realms of the Underworld; and this guide and guardian being the Dog of Hea and of Oriôn, must be (amongst other things) *Sirius*, brightest of stars, who aids the temporarily extinguished Sun to carry on the fight against Darkness and guides him eastward. The saying 'A dwarf on a giant's shoulder sees further of the two,'[8] must, I think, have been originally connected with the story of Oriôn and Kedaliôn, and

[1] Vide R. B. Jr., *U.* 76, *et seq.*

[2] Sir G. W. Cox, *Myth. of the Aryan Nations*, ii. 118.

[3] *Hymn to Amen-Ra*, ap. Goodwin.

[4] Vide R. B. Jr., *G. D. M.* cap. xi. sec. i.

[5] Berosos, *Chaldaika*, i. 4.

[6] *Rig-Veda*, X. xiv. 1. Cf. *Atharva-Veda*, XVIII. iii. 13; *Il.* iii. 5: Ἐπ᾽ Ὠκεανοῖο ῥοάων.

[7] Vide Eustathios, in *Il.* xiv. 294.

[8] Herbert, *Outlandish Proverbs*, A.D. 1640. Vide the illustration 'Oriôn led by Kedaliôn' (R. B. Jr., *G. D. M.* ii. 229).

would mean that at night the light of *Sirius* is superior to that of Hêlios. Izdubar steps into the boat of Lig-Hea, a veritable Argô, and exclaims to a woman called Sabitu '(who on the shore) of the sea dwelt :—

> If it be suitable the sea let me cross.
> Sabit to him speaks,
> There was no crossing (of the sea), O Izdubar, at any time,
> And no one from remote times has crossed the sea.
> From crossing the sea Samas [1] the hero I prevented; (*yet*) *Samas* [2] *crossed.*
> Izdubar and Ur-Hea [3] rode (in the ship);
> The ship the waves took.
> Ur-Hea also reached the waters of death,' [4]

which were in the West where the Sun died nightly. Izdubar subsequently says :—

> 'I crossed all seas.'

And he meets with a female called 'Waters-of-dawn-at-daylight,' just as Oriôn, whom 'Poseidôn had enabled to go through the sea,' [5] reaches the extreme eastern ocean, where his sight is restored. So in the Undersea Izdubar regains his health; the boatman pursuant to the commands of the translated sage Adra-Khasis, the hero of the Flood,

> 'Took him, to cleanse he carried him,
> His disease in the water like purity he cleansed.
> He cast off his illness, and the sea carried it away, health covered his skin.
> The hair of his head [the solar rays] was restored.
> The hair he did not cast off, but alone he was alone.' [6]

I.e., unrivalled, the solitary Sun, the 'Only-son' of heaven; as the Kemic *Hymn to Amen-Ra* expresses it :—

> 'The One in his works, single among the gods;
> The One alone without peer.'

Thus are Argô and Oriôn mythologically connected, and the wandering back of the blinded Oriôn is commemorated in the common name *Aletropodion* applied to the constellation of *Orion*, although it has no special reference or meaning in this latter connexion. *Alê* is a homeless, endless roaming, the ceaseless journey of the heavenly bodies in space, that Aleian Field in which Bellerophôn, the feeble

[1] The Sun-god, Heb. Shemesh.
[2] Like Hêlios, Apollôn, Heraklês, Chrysôr, Melqarth, Oannês, and Ôdakôn.
[3] Another form of the name Lig-Hea.
[4] *C. A. G.* 266-9.
[5] Pherekydes, ap. Apollodoros, I. iv. 3.
[6] *C. A. G.* 291-2.

melancholy Sun, sadly wanders. *Aletropodion* is the 'Foot-turning-wanderer,' *i.e.*, the Sun who, according to the Orphic verse,

> 'Was called Dionysos,
> For that he wanders abroad[1] through the boundless and blessed Olympos.'[2]

'What, then, is this Nysa, Nysê, of which Dionysos is the king? Nysa is the post on a race-course, the turning-point. . . . The distant Nysas over which the Sun-god rules, are the apparent turning-points in his bright career; when, having reached the goal, he drives his chariot back again on the accustomed path.'[3]

The legend of Izdubar thus, amongst other things, introduces the previously concealed story of the Deluge; and the account of the great ark-ship in which Adra-Khasis preserved man and beast.

The principal star of *Argo* is *Canopus* (*a Argûs*), which is in the rudder; and, according to late and unimportant mythic legend, it bears the name of the helmsman of Menelaos; he was said to have died in Egypt on his return from Troy. The star is not visible from any locality higher in latitude than the southern part of the Mediterranean. Strabo repeats a tradition that Eudoxos was wont to watch it from his observatory at Cnidos,[4] and also says that its name is 'but of yesterday'[5] a mistake, since a Kemic poet of the reign of Thothmes III. hymns *Karbana* (*Canopus*, the *Karbanit* of Assurbanipal) as 'the star

> Which pours his light in a glance of fire
> When he disperses the morning dew.'[6]

Thus, in Hellenik myth, Kephalos ('the Head' of the rising sun) slays Prokris (the dew); but the elegant words of the poet are far more applicable to Hêlios than to *Canopus*, and point to the latter as a reduplication of the former. Hyginus alludes to the opinion that the Eridanus was identical with the Nile, an idea which I shall notice subsequently;[7] and states that one reason urged in favour of this view was that 'infra eum [Eridanus] quaedam stella sit clarius caeteris lucens, nomine Canopos appellata. Canopos autem insula flumine alluitur Nilo.'[8] With respect to the name of the Neilos-Nilus, 'although this word is still retained in the Arabic language as Nil, with the special meaning of 'inundation,' yet its

[1] Διώνυσος—δινεῖται, a fair specimen of ancient etymology.
[2] *Orphik Hymns*, Frag. vii.
[3] R. B. Jr., *G. D. M.* ii. 208.
[4] Strabo, II. v. 14.
[5] Ibid. I. i. 6.
[6] Ap. Brugsch, *Egypt under the Pharaohs*, i. 371.
[7] Vide *inf.* sec. XVIII.
[8] *Poet. Astron.* ii. In voc. *Eridanus*.

origin is not to be sought in the old Egyptian language, but to be derived from the Semitic word Nahar or Nahal, which has the general signification of 'river.'[1] The Nile, then, is 'the River.' So far as the ancient hemisphere is concerned, there was nothing to prevent *Eridanus* from winding round to *Canopus*, as no constellation intervened.

Mr. Proctor acutely remarks, 'It is noteworthy that when we make due correction for the effects of precession during the past 4,000 years, the old constellation Argo is set on an even keel, instead of being tilted some 45° to the horizon as at present, when due south.' On this line of research, too, the Ship shows Akkadian influence.

VI.

Cetus.—The Sea-monster is connected in legend with the northern family-group of *Kepheus*, *Kassiopeia*, and *Andromedê*. Kêpheus, the Aithiop king[2] and son of Belos,[3] is a personage altogether non-Aryan and Euphratean; and Hellanikos, B.C. 490–10, chief of the Greek logographers, mentions[4] Kêpheus and the Kephenians in connexion with Bab-ili (Babylon, *i.e.*, 'Gate-of-God').[5] M. Lenormant[6] gives an extract from a Babylonian Fragment, of which he says:—'C'est le prototype de l'histoire de Persée et d'Andromède,' and Perseus, a name which has certainly also an Aryan signification, has been connected with the Parsondas of Nicholas of Damascus. Parsondas was the solar brother of Nannaros, the Assyrian Nannaru ('the Illuminator'), a name of the Moon-god Sin.[7] I have suggested[8] that the original form of Andromedê may have been Antarmada, *i.e.*, 'Sky-cutting-from-Media,'[9] or Eastern dawn-light. The solar Perseus rescues his dawn-bride Andromedê from the monster of darkness and of the deep; this is a thoroughly Aryan idea, but probably equally non-Aryan, as observation of the dawn is not confined to any one branch of the human family. Egypt[10] has

[1] Brugsch, *Egypt under the Pharaohs*, i. 14.

[2] *Αἰθιοπίαν, ἧς ἐβασίλευε Κηφεύς* (Apollodoros, II. iv. 3).

[3] Herod. vii. 61, 150.

[4] *Persika*, Frag. iii.

[5] Cf. *Genesis*, xi. 5: 'Yahveh came down to see the city.'

[6] *Les Premières Civilisations*, ii. 24–5.

[7] Ak. Zu-en (M. Fritz Hommel), meaning, I presume, 'Eye-lord.'

[8] *U.* 55.

[9] Ak. *an*, 'sky'; *tar*, 'to cut'; and *Mada* (*i.e.*, *ma*, 'land,' as in Etruscan, and *da*, individualising affix = '*the* land'), Media.

[10] 'The name Egypt [Aigyptos], given to the country by the Greeks, and, according to Brugsch, derived from Ha-Ka-Ptah, *i.e.* house of the worship of Ptah; or, according to Ebers, from Ai-Kaft, *i.e.* the coast-country Kaft, or the curved coast, was not a native word.' The inhabitants 'called their land Kem, the black, in con-

its dawn-myths as well as India, and in Kem Darkness is personified as the Crocodile that feeds upon the setting stars;[1] and as Apap, the great and evil Serpent. Wilford's famous pundit having shown him 'a rare work in Sanskrit, which contained a chapter devoted to Upanacchatras, or extra-zodiacal constellations with drawings of Capuja (Cepheus), Casyapi (Cassiopeia), Antarmada and Parasiea (Perseus),' he credulously came to the conclusion, since accepted by various other sages, that India furnished Hellas with these particulars, whereas in truth the reverse is the fact;[2] what Greece borrowed in astronomy from the non-Aryan East, she subsequently bestowed upon the Aryan East. I notice that in India the name Andromedê passed again into that form which I apprehend was its archaic one.

The Sea-monster itself is the Euphratean Tiamat, Heb. Tehôm ('the Deep'), the Thanatth[3] of Berosos, the Tauthê of Damaskios,[4] called 'the Dragon of the Sea,' 'the Serpent of Night,' 'the Serpent of Darkness,' and 'the mightily strong Serpent,' the representative and personification of Watery-chaos, Night, Storm-darkness, and Moral-evil, vanquished by Merodach (=Perseus) and reduplicated in the Hydra. In the history of the Seven Wicked Spirits, also reduplications of Tiamat, and who attack the Moon-god, we read:—

'(Like) a Sea-monster to the River in front they marched.'[5]

I append a comparative notice of the Crocodile in Kemic symbolism.[6]

VII.

Hydra. The Sea-serpent, the equivalent of the Midhgardhsormr of Norse mythology,[7] is a reduplication of the Sea-monster; just as in Akkadian myth the drakontic Tiamat is reduplicated in the seven evil moon-assailing spirits,[8] and thus becomes a seven-headed dragon, and the Hydra Septiceps. Heads grow

tradistinction to the red clayey soil of Libya and Syria' (Tiele, *Hist. of the Egyptian Religion*, 1882, p. 13). Some Egyptologists have connected *Aiguptos* with *Aquipto*, 'the mid-point of earth,' or render it Ukh-hap-t, 'the land of the good stream-sending spirit.'

[1] Vide Renouf, *Rel. of Anct. Egypt*, 108.

[2] Vide Weber, *Hist. of Indian Literature*, 2nd edit. 1878, p. 229.

[3] The corrected form of Thalatth, from which the Greek *thalassa*, 'sea,' was not unnaturally, but erroneously, derived.

[4] *Aporiai*, cxxv.

[5] *C. A. G.* 100. *Eridanus* adjoins *Cetus*.

[6] Vide Appendix I.

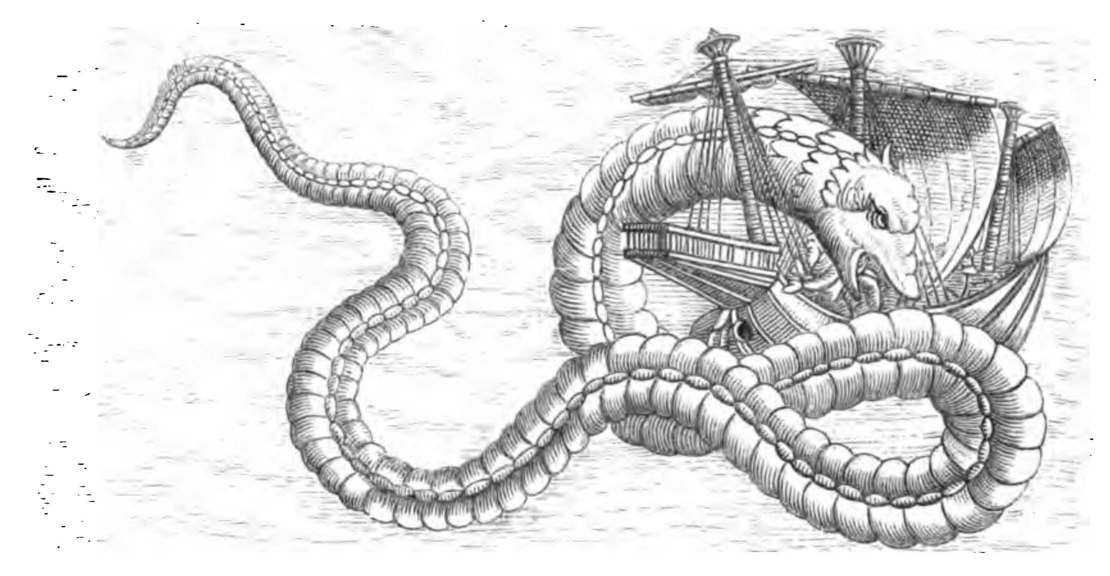
[7] Vide R. B. Jr., *R. M. A.* secs. 12, 13, 15.

[8] For a comparison of Euphratean and Norse personages, vide R. B. Jr., *U.* 14–15.

rapidly, and by the time the monster has reached the swamp or marsh of Lernê, we find it with nine heads, or, according to some, with a hundred ;—

'Lernaeus turbâ capitum circumstetit anguis.'[1]

Here it is vanquished by Heraklês,[2] the Sun-god,[3] and their contest was diversified by a most singular incident, one evidently of a very archaic character, and to which I would call special attention. 'An enormous crab came to the assistance of Hydra, and bit the foot (of Heraklês).'[4] Now *Karkinos*, the Zodiacal Crab, is, as I have shown,[5] a reduplication of *Scorpio*, the latter being a most archaic



HYDRA OVERCOMING ARGO (from Gesner's *Historiae Animalium*).

emblem of darkness. The Crab that bites Heraklês in the foot (δάκνων τὸν πόδα) —the vulnerable part of a solar hero—is a reduplication of the Scorpion that stings Oriôn and of the boar that wounds Adonis ; and when we come to observe the location of the constellations, we find that *Cancer* is next the solar Lion,[6] beneath whom is the *Hydra*. Another constellation which adjoins both *Leo* and

[1] *Aeneid*, viii. 300.

[2] ''Ηρακλῆς enim quid aliud est nisi Ἥρας id est aeris κλέος' (Macrobius, *Saturnalia*, i. 20). Hêrê = Sk. Svar, 'the Gleaming.'

[3] 'Nec Hercules a substantia solis alienus est' (*Ibid.*). Prof. Tiele is doubtless correct in his conclusion in the *Theologisch Tijdschrift* (Nov. 1881) that Heraklês is an essentially Aryan hero (cf. R. B. Jr., *G. D. M.* i. 177), but yet at the same time his feats and history generally are greatly connected with those of several non-Aryan solar heroes.

[4] Apollodoros, II. v. 2.

[5] *L. K. O.* secs. xiii., xvii.

[6] Vide R. B. Jr., *U.* sec. xii.

Hydra is *Virgo*. Now the original Zodiacal Virgin, *i.e.* Female-figure, is Istar-Astartê,[1] the wife of Tammuz, and connected with the brilliant planet *Venus*. But it is probably not going too far, and is also in strict accordance with the analogies, to opine that one original mythical Virgin (for Istar is no representative of virginity) is the Dawn (Athêna-Parthenos); and that in the group of *Leo*, *Virgo*, and *Hydra* we have a strict and exact reduplication of *Perseus*, *Andromeda*, and *Cetus*. The great Sea-serpent that in ancient legend will attack and crush a large ship is *Hydra*, which, vanquished by *Leo*, at times overcomes *Argo*; that is to say, the Storm-and-darkness Demon at times, like the drakontic black-eyed serpent Echidna[2] ('the Strangler'), crushes and covers the solar ship.

This contest of the Heraklês-sun with the Hydra is also commemorated in the constellation *Engonasin* ('the Kneeler'),[3] the original name of the personage represented being unknown to the Hellenes. 'Hunc Eratosthenes Herculem dicit,'[4] nor was he wrong practically, for the original Kneeler is plainly the Euphratean Izdubar, who is frequently depicted on the cylinders in this very posture, 'kneeling upon one knee' when contesting with the Lion.[5] On another cylinder[6] he is shown kneeling on one knee and holding with both hands over his head the lion whom he has vanquished. This, being a conventional scene, is repeated.[7] Personages who may or may not be identical with Izdubar also appear on the cylinders kneeling upon one knee;[8] but he is the only combatant who, so far as I am aware, is thus represented. The beneficent Sun-god, it will be remembered, alike overcomes the Dragon-serpent of Darkness, and the Raging-lion (the Lion of Nemea) of injurious summer heat (Athamas).

On a uranographic Babylonian stone of the twelfth century B.C., now in the British Museum (and which I shall afterwards allude to as Stone B),[9] the Great Serpent, as a constellation, is portrayed at portentous length. It also appears in a similar character amongst the emblems on the Stone of Merodach Baladan I.;[10] and on the Michaux Stone. 'The top of the stone is bordered with an immense snake; its tail extends into the very inscriptions, its head touches the head of the dog.'[11] The head of the constellation *Hydra* adjoins *Canis Minor*; and it is only separated from *Canis Major* by the modern constellation *Monoceros*.

[1] Vide R. B. Jr., *L. K. O.* sec. xv.
[2] Vide R. B. Jr., *U.* 76.
[3] Vide *sup.* p. 6, note 6.
[4] Hyginus, *Poet. Astron.* In voc. *Engonasin.*
[5] Vide *C. A. G.* Frontispiece.
[6] Ap. Lajard, *Culte de Mithra*, pl. xxv. 3.
[7] Ap. Lajard, *Culte de Mithra*, pl. xxvi. 5.
[8] *Ibid.* pl. xxxi. 7; xl. 4.
[9] Vide *inf.* secs. VIII., XXVI.
[10] Vide Geo. Smith, *Assyrian Discoveries*, 236.
[11] *R. P.* ix. 93.

An Akkadian hymn, spoken by Merodach, alludes to

> 'The huge serpent of seven heads.
> The serpent that beats the sea, (which attacks) the foe in the face.'[1]

'This serpent was originally identical with the dragon of the deep,'[2] that is to say, *Hydra* = *Cetus*.

Other members of this family are the Chinese moon-devouring Dragon-of-Night; the Hindu serpent-demon Rahu, who chases sun and moon; the Norse wolves Skoll and Hati, the latter of whom is called Managarmr ('Moon-Swallower'), who similarly endlessly pursue Sôl (the female sun) and Mani (the moon); and the Naga, the five-headed or seven-headed hooded snake, which appears on the sculptures of Sanchi and Amravati.[3]

Crater.—The mixing-bowl is not the solar boat-cup of Hêlios and Heraklês,[4] nor is it originally connected with the story of Ikaros the Athenian, to whom Dionysos disclosed the use of wine, which he distributed to his countrymen, using a special cup; in this legend, however, the daughter of Ikaros, Erigonê (the 'Early-born'), the Homerik Êrigeneia, a usual epithet of Êôs, is identified with *Virgo* (Athêna-Parthenos). According to some, Crater 'dolium esse quo Mars [Arês], ab Otho [Otos, 'the wind (vâta)'],[5] et Ephialte [' the hurricane, *i.e.*, the leaper'][6] sit coniectus.'[7] Sir G. W. Cox explains the singular myth[8] thus:—'The clouds in their triumph are the Aloadai when they bind Arês and keep him for months in chains, as the gigantic ranges of vapour may be seen sometimes keeping an almost motionless guard around the heaven, while the wind seems to chafe beneath as in a prison from which it cannot get forth,'[9] the gigantic brethren apparently representing clouds and storm winds. The Moliones, with whom the Aloadai are identical,[10] are, like Kyknos,[11] slain by Heraklês. The *pithos* or huge jar (*dolium*)[12] is the vault of heaven wherein at times storm, tempest, clouds, rain, are chaotically mixed, and which reappears in a somewhat variant phase as the Cup or Urn of *Aquarius*.

[1] *C. A. G.* 87.

[2] Prof. Sayce, in *C. A. G.* 87.

[3] Vide Fergusson, *Tree and Serpent Worship*; R. B. Jr., *G. D. M.* i. 120, note 7; *R. M. A.* 29, 40. For able comment on the Aryan aspect of the Hydra of Lernê, vide Sir G. W. Cox, *Myth. of the Aryan Nations*, ii. 48.

[4] Vide R. B. Jr., *G. D. M.* ii. 111.

[5] Prof. Max Müller, *Lects. Sci. Lang.* ii. 357.

[6] Sir G. W. Cox, *Myth. of the Aryan Nations*, ii. 254.

[7] Hyginus, in voc. *Hydra*.

[8] Vide *Il.* v. 385.

[9] *Myth. of the Aryan Nations*, ii. 254.

[10] Vide M. Müller, *Lects. Sci. Lang.* ii. 355, *et seq.*

[11] Vide *inf.* sect. XXIX.

[12] Vide the colossal jars found by Dr. Schliemann on the site of Troy (*Troy and its Remains*, pl. xi. B).

Another legend, located in Asia Minor,[1] connected *Crater* with the mixing of human blood with wine in a bowl, a tale which recalls the Euphratean kosmogonic legend related by Berosos, how that in the beginning all was darkness, water, and monsters, presided over by a mystical female who was cut asunder by Belos, and thus became heaven and earth. Belos next cut off his own head, or commanded one of the gods to cut off his head, and, the flowing blood having been mixed with earth, men and beasts were formed therefrom, all which was an allegorical description of nature.[2]

Corvus.—One Aryan aspect of *Corvus* is that of the solar Crow or Raven, white by day and black by night,[3] as 'the bull-sun is white at morn, red at eve, and black at night;'[4] and as 'the plumage [of the Phoenix] is partly red and partly golden.'[5] So in representations of the solar Mithraik rites, 'the Lion and the Raven stand for the attendant priests; for in these rites the superior officials were styled *Lions*;[6] the inferior *Ravens*; hence the rites themselves are often designated as Leontica and Coracica.'[7] But the Euphratean connexion of Khakhar, 'the Raven,' and Kakanu, 'the Crow' (two onomatopoeic formations), more resembles the other Aryan aspect of the bird. '*Vṛikas* in the Vedic hymns,' observes Prof. Gubernatis, 'may mean both wolf [generally a nocturnal symbol][8] and crow. The crow, like the wolf, represents the dark night. The crow . . . the representative of the gloomy night or cloud.'[9] In illustration of the Euphratean connexion between the crow or raven and darkness and chaos, we find it stated in a *Babylonian Legend of the Creation*:—

> 'Warriors (with) the bodies of birds of the desert, men
> (With) the faces of ravens,
> These the great gods created;[10]
> Tiamat gave them suck.
> In the midst of the earth they grew up and became strong, and
> Increased in number.'[11]

Thus these monster-ravens were the brood of Tiamat, 'the principle of chaos and anarchy,' and in this point of view *Corvus* is fitly joined in a triad with *Crater* and *Hydra*.

[1] Vide Hyginus, in voc. *Hydra*.
[2] Vide R. B. Jr., *G. D. M.* ii. 308–9.
[3] Vide *inf.* sec. XXII.
[4] R. B. Jr., *G. D. M.* ii. 153.
[5] Herod. ii. 73.
[6] Vide Porphyry, *Peri Apoch.* iv. 16.
[7] King, *The Gnostics and their Remains*, 59.
[8] Vide *inf.* sec. IX.
[9] *Zoological Myth.* ii. 250. Vide the numerous illustrations cited.
[10] Vide *sup.* in voc. *Crater*.
[11] Ap. Prof. Sayce, in *R. P.* xi. 109.

Crater and *Corvus*, again, seem to be southern reduplications of the northern *Cygnus* and *Aquila*.[1]

If *Argo* contains any reference to the legend of the Ark-ship, *Corvus* may be also connected with the Raven sent forth to see if the flood had abated.

> 'I sent forth a raven and it left.
> The raven went, and the carrion on the water it saw; and
> It did eat, it swam, and turned away, it did not come back.'[2]

Representations of a bird, which may be the Khakhar, occur on uranographic Euphratean monuments.[3]

VIII.

Piscis.—The Fish is a reduplication of the original single Zodiacal Fish.[4] Hyginus connects the Zodiacal *Piscis* with the Euphrates, and mentions a legend which stated that Venus[5] and Cupid took the form of fishes in that river.[6] The constellation *Piscis* adjoins *Capricornus* on the south; the Sun is still wholly a Fish, and has not yet in his upward course become half goat. *Piscis* also swims in the stream from the urn of *Aquarius*, the Rain-giving sun; and this stream is one of the two branches of the river *Eridanus*.[7] Syria, the home of Derketô-Atargatis,[8] mythic mother of Sammuramat (Semiramis) and of Dagon, the reduplication of Hea-chan (Oannês),[9] is markedly connected with a fish-cult Euphratean in origin.

Ara.—This constellation lies in the extreme south, beyond *Scorpio*. On Stone B amongst the constellational figures are shown five altars apparently planetary,[10] one of which is immediately below a Scorpion, itself placed immediately below the Sun.[11] In the zodiacal cincture *Scorpio* follows *Libra*, and, as I have shown,[12] there is very strong reason to suppose that the original Zodiacal Sign, subsequently represented by *Chelai* ('the Claws'), otherwise Zugon ('the Yoke'), and *Libra*, was the *Altar*. The patron-divinity of the month corresponding with

[1] Vide *inf.* sec. XXIX.
[2] *C. A. G.* 286.
[3] Vide *inf.* sec. XXVI.
[4] Vide *sup.* p. 8, note 6.
[5] The Aryan Venus, whose name is connected with the Sk. root *van*, 'to desire, love,' is the analogue of Istar.
[6] Vide R. B. Jr., *L. K. O.* sec. xxii.
[7] Vide *sup.* p. 2.
[8] Atargath. The 'temple of Atargatis' is mentioned in 2 *Maccabees*, xii. 26. 'Atargatis, that is, 'Atar-'Ati, may be represented by the goddess Antarata of the Hittites' (Prof. Sayce, in *T.* vii. 260).
[9] Vide R. B. Jr., *L. K. O.* sec. xxiii.
[10] Vide *inf.* sec. XXVI.
[11] Vide R. B. Jr., *L. K. O.* sec. xviii.
[12] *Ibid.* sec. xvii.

the Sign, is Samas, the Sun-god. Manilius calls *Ara* 'mundi templum,'[1] and Hyginus says, 'In hac primum dii existimantur sacra et coniurationem fecisse, cum Titanas oppugnare conarentur.'[2] Manilius agrees, connecting the institution of *Ara* with the war of the earth-born giants,

'Discordes vultu, permixtaque corpora partus,'

against heaven, Jove, and the gods. Now the skies are the original altar on which is offered up especially at midday, a period corresponding with the position of the constellational *Ara* in the extreme south, the heavenly flame, *i.e.*, the solar photosphere, Dumuzi, the 'Only-son' of the diurnal heaven, who by this sacrifice of himself preserves kosmic order and perpetuates the harmony of the world. So in the Phoenician myth, El-Kronos 'had an only son who was on that account called Yedud [*i.e.*, 'the Only-begotten']. When the country was placed in jeopardy during a great war [*i.e.*, the assault upon kosmic order by chaotic influences], he decked his son in royal apparel, erected an altar, and sacrificed him thereon.'[3] In the historical Molekh-worship of the Phoenicians an only son was regarded as the most acceptable offering to heaven, the reason of which is now evident. In Akkad, too, human sacrifices appear to have prevailed to some extent; for Prof. Sayce quotes an Akkadian Hymn which states :—

'The head of the offspring for the head of the man he gave;'

and an Assyrian text reads :—

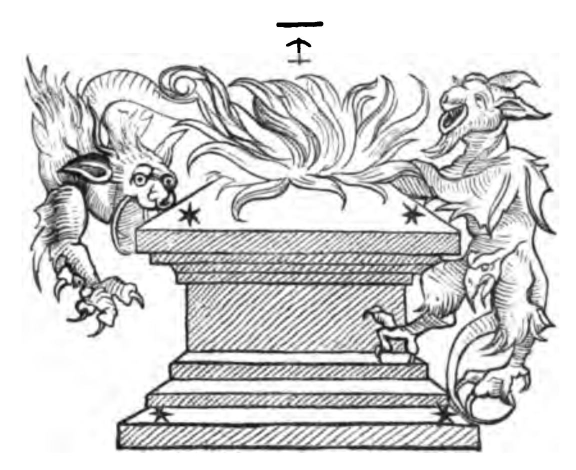
'An eclipse failed; the crops of the land not prosperous.
On the high places the son is burnt.'[4]

The name of the first Akkadian month, *Bara-ziggar*, is rendered 'the Sacrifice of Righteousness,' and 'the Sacrifice of Bel,' an incident which formed the subject of a lost archaic poem. This sacrifice was of Aries, not the constellational *Aries*, but the Ram-sun of which the constellation is a reduplication. The Altar then = (1) The midday sky occupied by Sol radiate—Yedud 'in royal apparel.' (2) The Akkadian Zodiacal Sign *Tulku*, 'the Illustrious Mound,' which belonged to the seventh month (September–October) and succeeded Istar (*Virgo*). This is a reduplication of the former; and, according to my kindly critic in *Nature*,[5] 'seems to

[1] *Astron.* i. 427.
[2] *Poet. Astron.* ii. In voc. *Ara.*
[3] *Frag.* ex Philonis de Judaeis Libro, ap. Bunsen, *Egypt's Place*, v. 842.
[4] Prof. Sayce, in *T.* iv. 28–30.
[5] May 25, 1882.

have referred to the story of the Tower of Babel, whose building was placed at the autumnal equinox.' And (3) the extra-zodiacal constellation *Ara*, a second reduplication.[1] Its terrestrial Euphratean reduplications are specially the *ziggu-ratu*, or temple-towers, on the summit of which was placed the altar of the divinity. Hence *Ara* is sometimes called Pharos, 'the Lighthouse.' *The* Tower, it may reasonably be supposed, had or was intended to have its altar and summit-fire, like the other towers of the locality.

The altar being the symbol and pledge of kosmic harmony, was especially hateful to the powers of chaos and disorder. Hence in the annexed illustration grotesque demons, the representatives of the telluric giants, adorned with talons



ARA (from the Hyginus of Micyllus, A.D. 1535).

and curling tails, vainly assail the structure, and would fain extinguish the unwearied flame.

Aratos states that 'Ara is to be seen above the horizon for as many hours as Arcturus remains below the horizon. The relation has not been fulfilled since some 3,600 years ago, when the star Arcturus was 50° from the North Pole, and the middle of Ara 50° from the South Pole. If, as is probable, the whole of Ara is meant, then the epoch must be placed four centuries further back.'[2] Thus we obtain another line of independent evidence attesting the antiquity of the *Altar* as a constellation; and the astronomical statements, repeated parrot-like by Aratos, are in perfect accordance with the general testimony of antiquity respecting the lengthy period during which sidereal observations had been made in the Euphrates

[1] Vide R. B. Jr., *R. M. A.* sec. xix. 'The Law of Reduplication;' *L. K. O.* sec. x. *Aries.* [2] R. A. Proctor.

Valley. According to Porphyry and Simplikios, Kallisthenes sent to Aristotle from Babylon 'a series of astronomical observations, which reached back [not to mention higher figures] . . . as the Latin translation has it, for 1,903 years before the time of Alexander the Great';[1] and, remarks Professor Sayce, 'Though it is impossible to accept the prodigious antiquity which he [Berosos] assigns to [Babylonian] star-gazing, I have yet been much impressed by the great age to which the testimony of the astronomical tablets which I have examined would throw back the beginning of a systematised and recorded astrology.'

Taking the era of Alexander as B.C. 330, this date +1903=B.C. 2233, which +1882=4115. Now the observation of Aratos, as we have seen, probably applies to a time 4,200 years ago; and hence we obtain the date circa B.C. 2300 (1) as about the time when this observation was made, and (2) as an historical epoch in astronomy.

IX.

Centaurus.—The Centaur is Cheirôn, 'the Skilful' (lit. 'handy'), an adept in the arts of hunting, medicine, music, and prophecy, a pupil of Apollôn, and an instructor of heroes, son of Kronos[2] and Philyra, a daughter of Okeanos, or of Ixiôn (Sun) and Nephelê (Cloud), who bestowed on Peleus the famous spear of Achilleus, and who, like a true solar hero, died from dropping a poisoned arrow on his foot.[3]

That hunting, music,[4] and prophecy are arts which distinguish the Sun we are aware; and therefore the mother of Cheirôn is naturally Philyra ('the Linden-tree'), whose bark was used by the Skythian Enarees, and probably by others, whilst prophesying.[5] But this Tree-nymph is also the daughter of Okeanos, and so is connected with the famous myth of the Grove of the Underworld, which I have elsewhere treated of.[6] Cheirôn combines the activity and strength of beast

[1] Prof. Sayce, in *T.* iii. 146.

[2] As to the non-Aryan Kronos ('There is no such being as Κρόνος in Sanskrit.'—Prof. Max Müller), vide R. B. Jr., *G. D. M.* ii. 125, *et seq.*

[3] 'Una eorum decidisse supra pedem Chironis et ita eum interfecisse' (Hyginus, *Poet. Astron.* ii. 38). So Ovid, *Fasti*, v. 397–9:—

> 'Dumque senex tractat squalentia tela venenis,
> Excidit et laevo fixa sagitta pede est.
> Ingemuit Chiron, traxitque e corpore ferrum.'

Cf. Heraklês and the Crab, *sup.* sec. VII.

[4] Cf. Ruskin: 'The sun is always thought of as the master of time and rhythm, and as the origin of the composing and inventive discovery of melody. . . . Whatever in music is measured and designed belongs therefore to Apollo and the Muses' (*Queen of the Air*, i. 41).

[5] Herod. iii. 67.

[6] Vide R. B. Jr., *U.* sec. xii. subsec. 3.

with the virtue and intelligence of man. He is a reduplication of *Sagittarius* (and indeed is actually identified with the latter by some writers),[1] himself a reduplication of the Archer-sun,[2] and the arrow of *Toxotes* reappears in the spear of Cheirôn. He assisted the Argonauts, and was represented on the famous throne of Amyklai, receiving from Peleus the youthful Achilleus, whom he was to educate.[3] He appeared also on the equally famous chest of Kypselos, with his fore feet those of a man, and his hind feet those of a horse, to show the union of powers; and after death being admitted to communion with the gods, he endeavoured to assuage the grief of his former pupil Achilleus.[4]

Various authorities ascribe astronomical knowledge to Cheirôn, the last and greatest of them being Newton, who asserted that 'Cheirôn delineated the constellations, and was a practical astronomer.'[5] In the same way Uranus ('Heaven'), Aktis ('the Sun-beam'), Belus,[6] and other similar personages have been spoken of as 'practical astronomers.'

According to Berosos, in the primeval period, there existed beings which 'united the hind quarters of a horse with the body of a man,' and representations of them and of other compound creatures were preserved in the temple of Belos.[7] Now Cheirôn is a very fair reproduction, allowing for differences of period and race, of Heabani,[8] the famous friend of Izdubar, who 'appears, from the representations on seals and other objects on which he is figured, to have been a satyr or faun. He is also drawn with the feet and tail of an ox, and with horns on his head.[9] He is said to have lived in a cave among the wild animals of the forest, and was supposed to possess wonderful knowledge both of nature and human affairs.' It may be inferred that he 'was believed to have originally ascended, like Oannês, out of the abysses of the sea.'[10]

Centaurus is generally represented bearing his Achillean spear. A wolf or

[1] Vide Ovid, *Metam.* ii. 81.

[2] Vide R. B. Jr., *L. K. O.* sec. xix.

[3] Paus. III. xviii. 7.

[4] Ibid. V. xix. 2.

[5] Ap. Sir G. C. Lewis, *Astron. of the Ancients*, 73.

[6] Vide Pliny, *Hist. Nat.* vi. 26.

[7] *Chaldaika*, i. 4; vide R. B. Jr., *L. K. O.* sec. xix.

[8] *I.e.* 'Hea-created-me.' As Cheirôn springs from Okeanos and the Sun, so is Heabani produced by the solar Hea, 'lord of the deep.'

[9] This is not a usual characteristic of the Centaur. But with respect to the treatment of horns within the Hellenik sphere under the influence of the anthropomorphic principle, vide R. B. Jr., *G. D. M.* ii. 129, *et seq.* Under Hellenik influence the symbolical un-anthropomorphism so familiar in many other regions almost invariably disappears. Kedaliôn supplies a delicate instance of this. 'Though he is a son of Ptah-Hephaistos, a dwarfish Kabir, yet as soon as he comes within the influence of the principle of Hellenik anthropomorphic beauty this feature disappears, and his small stature is accounted for by describing him as a boy' (*G. D. M.* ii. 278). In the Hyginus above referred to, *Sagittarius* is represented as horned. Kronos, again, is 'the Horned,' like Dionysos-Taurokerôs, and many other non-Aryan personages. (Vide *Ibid.* 112, *et seq.*)

[10] *C. A. G.* 204–5.

hare is transfixed on it or attached to its end; and in his other hand he (like Oriôn) carries another hare or other animal. The Hare, as we have seen,[1] is a type of the moon; and the Wolf, which, as *Lupus*, was afterwards elevated into an adjoining constellation, is a well-known type of Darkness, thus vanquished and transpierced by the solar spear. I have referred[2] to the sun-and-moon-chasing wolves of Norse mythology, and these are reduplications of the mighty wolf Fenrir ('Dweller-in-the-depth'); he, according to the Norse scheme, lies bound by the gods in Amsvartnir, a lake of blackness in the Underworld; but in the great Ragnarok-contest, the 'wolf-age,' he shall break loose, and opening his mouth until the upper jaw reaches heaven and the lower jaw rests on earth, shall swallow the solar Odhinn.[3] Professor Gubernatis[4] gives many curious illustrations of the connexion between the mythological Wolf and Darkness.[5]

The Centaur as the Hunting-sun is, of course, a reduplication of Oriôn, and so on a Vase made by Tlesôn the Korinthian, Oriôn, like *Centaurus*, appears carrying a wolf and a hare,[6] the two representatives of the vanquished night. The Kentauroi generally are probably in Aryan mythology variants of the Vedic Gandharvas, 'who are manifestly the bright sunlit clouds.'[7]

The modern constellation *Crux Australis* ('the Southern Cross') was undoubtedly included in *Centaurus*, and formed the hind feet of the figure.

X.

It may be desirable to restate briefly the principle underlying the Law of Reduplication, of which I have given such numerous instances. Primitive man observed a constant repetition in nature; dawn followed dawn, sun succeeded sun day after day; he looked upon his fellow-man, saw himself again, and learnt that two was one repeated. He would further notice that this repetition was either exact or variant, *e.g.*, new but similar combinations of clouds; or, again, woman, *i.e.*, wife-man. And all reduplication was connected with intensity of continuance,

[1] *Sup.* sec. IV.

[2] *Sup.* sec. VII.

[3] Vide R. B. Jr., *R. M. A.* secs. xii., xv.

[4] *Zoological Myth.* ii. 34.

[5] Cf. the popular saying, 'As dark as a wolf's mouth.' The wolf, through the play of words λευκός—λύκος, sometimes appears radiate on coins. So Aischylos: *σὺ, Λύκει' ἄναξ, Λύκειος γενοῦ* (*Hepta epi Thebas*, 132).

[6] Birch, *Anct. Pottery*, 346.

[7] Sir G. W. Cox, *Myth. of the Aryan Nations*, ii. 35.

of being, of wish, of effort. Thus it took the form of emphasis, of direct phonetic and linguistic repetition, of pictorial reduplication—as shown frequently in cuneiform and other ideographs, and of purely mental reduplication, which latter applied to (1) personages, (2) general ideas, and (3) their embodiment in myths, legends, and folklore.[1] Now the object which to us is not only infinitely the most important, but also by far the most remarkable, is the Sun. In well-known words Professor Max Müller declares: 'I look upon the sunrise and sunset, on the daily return of day and night, on the battle between light and darkness, on the whole solar drama in all its details that is acted every day, every month, every year, in heaven and in earth, as the principal subject of early mythology.'[2] But suppose we are inclined to limit this principle to the Professor's more especial field, Hellenik, Vedic, Aryan mythology, can we safely do so? Why, we find Mr. Renouf quoting this very passage, and saying, 'Whatever may be the case in other mythologies, "I look upon the sunrise, etc., etc., as the principal subject" of Egyptian mythology.'[3] We find Professor Sayce saying, 'The more the Babylonian mythology is examined, the more solar is its origin found to be; thus confirming the results arrived at in the Aryan and Semitic fields of research.' With two exceptions, 'the great deities seem all to go back to the Sun.'[4] And again he says: 'As in the case of other nations, the Sun had been the chief object of worship, and the larger portion of the mythology accordingly grouped itself about the Sun-god and *the numberless forms which he had assumed.* The more I examine the Accadian mythology, the more solar does its character appear. Its several personages are mostly forms of the Sun.'[5] I quote these deliberate dicta of the highest authorities, (1) in support of the 'solar myth' and the view of mythology which this expression involves; and (2) because the numberless forms which the Sun assumes in mythic fancy, under the influence of the anthropomorphic principle, are the best illustrations of the Law of Reduplication. The Sun hastens across heaven; he therefore strides, runs, gallops, drives, sails, swims, chases the dawn, the clouds, the moon, the stars, is born, grows up, loves, leaves, rejoins his beloved, shoots the arrow and hurls the spear, is wounded, thorn-pricked, poisoned, sick, leprous, blinded, toils, fights, dies, and is reborn in endless life. And these phases are but a few, a very few, of his personified

[1] Vide R. B. Jr., *R. M. A.* sec. xix.
[2] *Lects. Sci. Lang.* ii. 565.
[3] *Rel. of Anct. Egypt*, 109.
[4] *T.* ii. 246, note.
[5] *Ibid.* iii. 165–6.

activities. But it may be said, It is obvious enough how the single Sun is divided into a Racer-sun, a Hunter-sun, an Archer-sun, a Fish-sun, etc.; but how does he react in idea upon the stars, so that *e.g.* the constellation *Orion* is called a solar reduplication? Thus: the sun supplies man with a point of departure, a standard by which to measure; the stars therefore are in idea as in reality the suns of night, and here obvious idea and scientific truth exactly harmonize; the brightest stars, stars of the first magnitude, are most like suns; and, as we have seen, the brightest of stars, Sirius, has ever been especially connected with Hêlios. And as the simpler precedes the more complicated, the observation and naming of individual stars necessarily preceded the grouping of constellations, *e.g.*, the Seven Shiners existed in idea ere they were grouped in *Ursa Major*;[1] but when the idea of unity was extended from the star to the cluster, that which had been represented by the star was (consciously or unconsciously) represented by the cluster. Thus the star *α Arietis*, which led the seasons through the year, was called in Akkadian Dil-Kur ('Dawn-proclaimer') and regarded as the 'bélier de tête,' the leader of the heavenly flocks. What is the rationale of this, and why and how is any fixed-star the dawn-proclaimer? By analogy, by reduplication. The Sun is the original dawn-proclaimer; he is the golden ram which leads the course of nature through the day, and though Hamal (*α Arietis*) can proclaim no dawn of day, it can yet proclaim the dawn of a longer cycle of time—the year, and lead the starry host through the changing seasons. So this second Dawn-proclaimer is a second Ram, and when its stars are grouped, it becomes a third Ram—*Aries*, 'leader and prince of the Signs,' the constellation being called *Aries*, just as the sweep of country around York is called Yorkshire; whence, incidentally, we learn that no fancied resemblance to a ram, and no connexion with the round of man's earthly duties or pursuits, pastoral or agricultural, entered into the selection. And if it be further asked, Why did men group stars? I answer that the stars have grouped themselves, and that uranography is based upon the same principles which have produced geography. Thus Dil-Kur-Hamal and *Aries* are truly and exactly reduplications of the Sun, and other reduplications are analogous; not by any means all exactly the same in character of mental procedure, for the child thinks, speaks, and understands as a child, the youth as a youth, and the man as a man; and the mental standpoint of the race alters as the heavenly bodies do

[1] 'The Seven Shiners were transformed first into seven bears, then into one with Arktouros for their bearward' (Sir G. W. Cox, *Myth. of the Aryan Nations*, i. 47).

under the effects of precession, but like them preserves a unity in change, so that we can calculate backward to far earlier aspects. To us the delicate web of mythology may appear intricate, and the skein perhaps tangled ; but we may rely that it arose in the most simple, natural, obvious, nay necessary manner.

XI.

Having now 'soared through the ether to the lofty ceiling where Oriôn and Seirios dart from their eyes the flaming rays of fire,'[1] I will briefly recapitulate the character of the archaic signs that have been examined, slightly indeed, but sufficiently for the purpose. Of the twelve signs examined, five—*Orion*, *Argo*, *Piscis*, *Ara*, and *Centaurus*—are solar in character ; the sun hunts, sails, swims, sacrifices himself, throws the spear. One—*Lepus*—is lunar. Two—*Canis Major* and *Canis Minor*—are stellar, but also primarily connected with the sun ; and the remaining four—*Cetus*, *Hydra*, *Crater*, and *Corvus*—represent starless night and darkness, more or less chaotic and tempestuous.

Piscis is a reduplication of the Zodiacal *Pisces*, originally *Piscis* ; *Ara* of the original zodiacal constellation the Mound-altar ; *Centaurus* of *Sagittarius* and *Orion* ; *Hydra*, *Crater*, and *Corvus*, of *Cetus*.

Orion and *Argo* are derivative solar formations in the first degree, *i.e.*, primary reduplications ; *Lepus* is a similar lunar formation ; and *Cetus* a similar formation representing chaotic darkness.

Orion is the Euphratean hunter-god, called in Akkadian Amar-utuki ('Light-of-the-Sun'), the Semitic Marduk (Merodach). Dumuzi (Tammuz) and Izdubar are variant solar phases.

Canis Major and *Canis Minor* are two of the hunter's dogs, and as stellar dogs are reduplications of prior solar and sun-attending dogs.

Argo, besides being solar, may perhaps be also connected with the ark-vessel of the Deluge legend, as *Ara* with the Tower of Babili.

Piscis is connected with the Oannês group.

Ara is the sacrifice of Bel.

Cetus, *Hydra*, *Crater*, and *Corvus* represent the Tiamat-power.

Centaurus, like *Orion*, is the mighty hunter.

[1] Euripides, *Hekabê*, 1100–1105.

Lepus represents the Moon,[1] and be it observed this connexion was not confined to the folklore of the Euphratean and Aryan families, for it appears also elsewhere, *e.g.*, in the Namaqua-myth of South Africa,[2] and in Mexico.[3]

Such, then, are the companion-constellations of *Eridanus*.

XII.

The mythic legend particularly connected with the river Eridanus is that of the rash attempt and death of Phaëthôn, who, having disordered nature and partially set the world on fire in a vain effort to drive the chariot of the Sun, was struck by the thunderbolt of Zeus-Jupiter, and hurled lifeless into the stream. The daughters of the Sun, sisters of Phaëthôn, who had encouraged their brother in the adventure, and yoked the steeds to the chariot, were changed into poplars, whilst their tears became amber. Ovid[4] has given an elegantly expanded and detailed account of the episode. There we read how Phaëthôn, a favourite child of Sol, sought his father's splendid palace, and asked, as a proof of sonship, that he might be permitted once to drive the solar steeds; how the reluctant sire at length consented; how the steeds, soon perceiving the feebleness of their new driver, became unmanageable; how the unhappy youth grew dizzy at the height and stupefied with terror at the strange sights of the ethereal regions, being especially alarmed by the Scorpion; how Earth suffered under the dreadful heat, the Ethiopians became black, the Euphrates, Ganges, and Ister flamed, and the Nile, flying to the remotest parts of the earth, hid his head, which has never since been discovered. Earth herself was hurrying to the shades when Jupiter, darting his lightning at the luckless charioteer, hurled him lifeless from his seat.

> 'Phaëthon, rutilos flamma populante capillos,
> Volvitur in praeceps, longoque per aëra tractu
> Fertur . . .
> Quem procul a patria diverso maximus orbe
> Excipit Eridanus, fumantiaque abluit ora.'

The prosaic account of Hyginus is similar. Phaëthon 'fulmine ictus in flumen

[1] Vide *sup.* sec. IV.

[2] Vide Hahn, *Tsuni-||Goam, the Supreme Being of the Khoi-Khoi*, 1881. Dr. Hahn observes: 'It is very peculiar that the moon and the hare are brought into connection in various parts of the world' (p. 137).

[3] Vide Tylor, *Prim. Cult.* i. 320–1.

[4] *Metam.* ii. 1–408.

Padum cecidit; hic amnis a Graecis Eridanus dicitur, quem Pherecydes primus vocavit. . . . Sorores autem Phaëtontis, dum interitum deflent fratris, in arbores sunt populos versae. Horum lachrymae, ut Hesiodus indicat, in electrum sunt duratae. Heliades tamen nominantur; sunt autem Merope, Helie, Aeglae, Lampedie, Phoebea, Etherie, Dioxippe.'[1] Fulgentius calls the sisters Arethusa and Lampetusa;[2] others Phaethusa, Lampetiê, and Lampethusa. Pitying fate

> 'Phaethontiadas musco circumdat amarae
> Corticis.'[3]

Cycnus, the friend of Phaëthôn, died of grief at the loss of the latter; and was changed into the constellational *Swan*.

> 'Ferunt luctu Cycnum Phaëtontis amati
> Populeas inter frondes umbramque sororum
> Dum canit, et moestum musâ solatur amorem,
> Canentem molli plumâ duxisse senectam,
> Linquentem terras, et sidera voce sequentem.'[4]

Such is the late formulated version of the ancient legend respecting Phaëthôn, his sisters, his fate, the poplars, amber, and the river Eridanus.

XIII.

First, as to Phaëthôn. Phaëthôn, 'the Beaming-one,' is—

I. A simple epithet of the sun, *Êelios phaëthôn*.[5]

II. One of the two steeds of Eôs,[6] Lampos being the other.

III. The hero of the legend, a reduplication of Hêlios, and son of Helios and Klymenê ('the Famous'), a daughter of Okeanos. **Κλύμενος** is a name applied to the god of the Underworld; and so we find a Klymenos mentioned whose sister is called Chthonia.[7] There are several personages named Klymenê, one of whom was the mother of Promêtheus, the fire-bestower; similarly Pausanias says that Klymenos was the son of Phorôneus, the Vedic Bhuranyu, who was reputed to have discovered the use of fire. Phaëthôn was with equal truth said to be the

[1] *Fabulae*, cliv.
[2] *Mythologiarum*, i. 15.
[3] Vergil, *Ecloga*, vi. 62
[4] *Aeneid*, x. 189–93. Aratos calls the constellation *Ornis*. A particular bird, not the eagle, appears on various Euphratean uranographic representations.
[5] *Il.* xi. 735; Hesiod, *Theog.* 760.
[6] *Od.* xxiii. 246.
[7] Paus. II. xxxv. 2. Chthonia, as Pausanias observes, is a name of Dêmêtêr.

son of the nymph Rhodê ('the Rosy'=Rhododaktulos Êôs); and a variant Phaëthôn, another solar reduplication, was called the son of Kephalos ('the Head'—of the sun) and Êôs,[1] and is fabled to have been snatched away by Aphroditê;[2] as conversely, the beautiful Kephalos was said to have been snatched away by Hêmera ('Day').[3] The wise Promêtheus[4] and the foolish Phaëthôn are alike variants of Hêlios. Phaëthôn springs from the 'famous' powers of the Underworld and Dawn at the ocean margin.

IV. The planet Jupiter, another solar reduplication.

The daughters of the Sun, sisters of Phaëthôn, Hêliê[5] ('the Female-shiner'), Aiglê ('the Radiant'), Phoibê ('the Bright'), Aitheriê ('the Upper-air'), Dioxippê ('Steed-of-Light,' like Phaëthôn and Lampos, 'the Bright'), Lampetiê ('Bright-one,' the Dawn-gleam[6]), and the rest, represent solar radiation, including what in modern scientific parlance is called 'the Sun's coronal atmosphere.' For 'the round sun that we see is not all there is of the sun, but only the denser part of it; the less dense and luminous vapours extend for hundreds of thousands of miles beyond the visible sun,' around which they 'form an envelope called the Chromosphere.'[7]

These Heliades sink with the sun and stand near him on the river banks bewailing his fall; and, did space and time permit, it would be interesting and instructive to compare them with the Kemic and Semitic solar goddesses, the former of whom 'personnifient la lumière du soleil,'[8] whilst the latter are similarly 'manifestations' of the god.

The poplar-tree and the change to poplars I shall notice subsequently.[9]

Phaëthôn was especially terrified at the Scorpion, and this is an archaic trait; for the Scorpion is the representative of Darkness, which first stings the bright Sun to death, and then, when kosmic order is realized, guards it through the night and at sunset and sunrise.[10]

[1] Hesiod. *Theog.* 986.

[2] It is now generally agreed that this is a non-Aryan name in an Aryan disguise. M. Fritz Hommel traces the variants thus: Ishtar, Ashtoret, Athtoret, Aphtoret, Aphrotet, 'Αφροδίτη.

[3] Paus. I. iii. 1.

[4] Sanskrit, Pramantha, the 'churn used for kindling fire with dried pieces of wood. The word thus has reference, not to his wisdom, but to his giving of the fire' (Sir G. W. Cox, *Myth. of the Aryan Nations*, ii. 208, note 1).

[5] Cf. Surya-Helios-Sol, 'the Shining.'

[6] Vide R. B. Jr., on *Od.* xii. (*G. D. M.* i. 392, *et seq.*).

[7] J. N. Lockyer, *Astronomy*, 86–7.

[8] Pierret, *Le Panthéon Egyptien*, 84.

[9] Vide *inf.* sec. XXII.

[10] For full treatment of this subject, with references and illustrations, vide R. B. Jr., *L. K. O.* sec. xvii.

XIV.

The Eridanus—is it the Padus? The statement of Hyginus above quoted that Pherekydes the logographer, cir. B.C. 470, first called the Eridanus the Padus, which latter stream is said to have received its name from 'the pine trees (in Celtic *padi*) which grew on its banks,' is repeated by commentators on Aratos: 'Pherecyde Eridanus Padus esse putatur; et ideo inter astra collocatus, *quod a meridianis partibus dirigere cernitur*.' It would be a curious inquiry what were the geographical views of Pherekydes, if he be truly reported, which is very questionable; for in the only extant passage of his work in which the river is mentioned there is not the slightest suggestion that it is the Padus, or in or near Italy. He says that Heraklês, in his quest for the golden apples, was advised by some nymphs, daughters *Διὸς καὶ Θέμιδος, οἰκοῦσαι ἐν σπηλαίῳ παρὰ τὸν Ἠριδανὸν*,[1] that he should inquire of Nêreus where the apples were. The whole passage refers to the adventures of the Sun in the West; the apples were guarded by *Δράκοντα τὸν Ἐχίδνης, ἔχοντα κεφαλὰς ἑκατὸν*, a reduplication of Tiamat-Cetus-Hydra. When Apollodoros, cir. B.C. 140 recounts the same expedition of Heraklês, he is more precise in the localities. He says:—'Making his way *through Illyria*, and hastening to the river Eridanos, he came *πρὸς Νύμφας Διὸς καὶ Θέμιδος*. These show him Nêreus.'[2] The addition *δι' Ἰλλυρίων* is significant, and converts the legend into Euemeristic prose. But of course Pherekydes *may* have identified the Eridanus and the Padus; and at all events Euripides, writing cir. B.C. 428, speaks of 'the ocean wave of the Adriatik shore and the water of Eridanos, where into the purple wave of their sire the thrice-wretched virgins for grief of Phaëthôn let fall the amber-gleaming rays of their tears.'[3] When Lucian was rowed up the Padus he saw neither 'black poplars' (*αἰγείρους*)[4] nor amber; and found no one in the country knew even *τοὔνομα τοῦ Φαέθοντος*.[5] Alas for a grand old myth in a late age! Like the Wordsworthian glory we bring into the world at birth, 'at length'—melancholy truth—

> 'The man perceives it die away,
> And fade into the light of common day.'

[1] *Frag.* xxxiii.

[2] *Bibliothêkê*, II. v. 11.

[3] *Hippolytos*, 735–41. Euripides treated the legend specially in his play *Phaëthôn*, a few fragments only of which are extant.

[4] Vide R. B. Jr., on *Od.* x. 508 (*U.* 90).

[5] *Peri tou Elektrou*, 2.

The crass, crude Euemerist touches the butterfly's wings and all is over. The Latin poets follow the Euripedean tradition, and this identification, as Sir G. C. Lewis well observes, 'was not accidental. The Greek mythology connected the amber tears of the Heliades with the Eridanus; and as amber was imported into Greece from the upper extremity of the Adriatic, it was naturally identified with the great river of Northern Italy, which falls into this part of the Adriatic. Amber was supposed to be so abundant in this region that, according to Pliny, the peasant women of the Transpadane district wore amber necklaces in his time.'[1] Sir G. C. Lewis calls the river 'the imaginary Eridanus,' and quotes approvingly Heeren's dictum that it is 'a fabulous stream.' Strabo, *the* geographer, is of the same opinion, observing, 'We shall let alone the numerous falsehoods and myths [relating to this part of the country]; such, for instance, as those concerning Phaëthôn and the Heliades changed into alders near the Eridanos, *which exists nowhere*, although said to be near the Padus; of the islands Elektrides opposite the mouths of the Padus . . . none of which things exist in these localities.'[2] Polybios also is of a similar opinion.[3] Although Vergil styles the Padus 'Eridanus fluviorum rex,'[4] 'gemina auratus taurino cornua vultu,'[5] after the fashion of a river-god,[6] yet his 'exquisite erudition' is evidently not satisfied with this view; and, accordingly, he introduces 'the king of rivers' in a very different scene.[7]

This branch of the subject may be concluded by the statement of Pliny. After begging the reader to have patience with him while he exposes Hellenik falsehood and frivolity, and after mentioning the story of Phaëthôn, his sisters, their tears (to these tears was given the name of *electrum*, from the circumstance that the Sun was usually called Êlektôr, *i.e.* 'the Beaming'), the poplars, and 'the Eridanus, a river known to us as the Padus,' he says:—'Such is the story that is told by many of the poets, the first of whom were in my opinion Aeschylus, Philoxenus [B.C. 435–380], Euripides, Satyrus [cir. B.C. 200], and Nicander [B.C. 185–135]; and the falsity of which is abundantly proved upon the testimony of Italia itself,' *i.e.* because no amber was found there. Having stated that there never were any islands near the Padus called 'the Elektrides,' he continues: 'As to Aeschylus placing the Eridanus in Iberia, or, in other words, in Spain, and giving it the name of Rhodanus . . . we can forgive them all the more readily

[1] *Astron. of the Ancients*, 464–5.
[2] Strabo, V. i. 9.
[3] Polybios, ii. 16.
[4] *Georgicon*, i. 482.
[5] *Ibid.* iv. 371.
[6] Cf. Sophoklês, *Trach.* 9–14.
[7] Vide *inf.* sec. XXI.

for knowing nothing about amber when they betray such monstrous ignorance of geography.'[1] It will be observed that he makes no mention of Pherekydes as having identified the Eridanus and the Padus, and it is clear from what he says that Aischylos did not do so.

Thus we see at once the origin and the baselessness of the theory which connected the Eridanus with the Padus, or located it near that river.

XV.

The Eridanus—is it any other European river? Herodotos says: 'Of the extreme tracts of Europe towards the west I cannot speak with any certainty; for I do not allow that there is any river, to which the barbarians give the name of Eridanus, emptying itself into the northern sea, whence (as the tale goes) amber is procured. For in the first place the name Eridanus is manifestly not a barbarian word at all, but a Greek name, *invented* [!] by some poet or other; nevertheless tin and amber do certainly come to us from the ends of the earth.'[2] Herodotos, like Strabo, denies the existence of any distant river called Eridanus, and says that the name is Hellenik. Probably he had in mind the small stream near Athens which, as Pausanias notes, 'has the same name as the Keltik Eridanos.'[3] Platôn says that 'in primitive times the hill of the Acropolis extended to the Eridanus;'[4] and Strabo observes that Kallimachos ridiculed the idea of Athenian virgins 'drinking of the pure waters of Eridanos,' 'from which even the herds would turn away.'[5] But the fact of there being a river in Attikê called Eridanos decides little or nothing respecting the meaning and derivation of the name, and whether it is Hellenik in origin or not. Professor Rawlinson, commenting on the passage in Herodotos, and after observing that 'the coast of the Baltic about the Gulf of Dantzig is still one of the best amber regions in the world,' remarks: 'The very name, Eridanus, lingers there in the Rhodaune, the small stream which washes the west side of the town of Dantzig. It is *possible*' that the name attached to the Vistula. 'For the word Eridanus (=Rhodanus) *seems* to have been applied, by the early inhabitants of Europe, especially to great and strong-running rivers.' *If* Eridanus=Rhodanus the matter is at an end.

[1] *Hist. Nat.* xxvii. 11.
[2] Herod. iii. 115.
[3] Paus. I. xix. 6.
[4] *Kritias*, ap. Jowett, *The Dialogues of Plato*, iii. 692.
[5] Strabo IX. i. 19.

The names Rhone and Rhine are merely variant forms of the word; and its 'main root appears in the Sanscrit *sru-*, the Greek *ῥε- ῥυ-*, the Latin *ri*-vus,' etc. In Eridanus it is joined with a root *dan* (= 'stream' or 'water'), which is also very widely spread, appearing in the words *Danube*, *Dane*, *Don*, *Tan*ais, and perhaps in Jor-*dan*.' Similarly, the Rev. Is. Taylor, speaking of Keltic river-names, says: 'The root *Rhe* is connected with the Gaelic *rea*, rapid; Greek *ῥέω*, Sanskrit *ri*, and the English words *run* and *rain* . . . Whether the root *Don* or *Dan*, is connected with the Celtic *afon*, or whether it is an unrelated Celtic or Scythian gloss, is a point which has not been decided.' And he concludes that, according to the weight of evidence, it means 'water' or 'river,' whilst some are in favour of the Erse *dana*, 'strong.'[1] He instances the E-*ri*-*dan*-us as a title illustrating this derivation, and the name would accordingly mean in Aryan 'the Strong-flowing.'

It is probable enough that the name 'Eridanus' has an Aryan meaning, a circumstance which of course does not imply that it has no other; for many proper names on borderlands, where different families of mankind meet, are double stars, though only revealed as such in the telescope of the most careful research; and without committing ourselves to all the above philological speculations, we may agree with the proposition generally, at the same time observing that in the Aryan theory, the first syllable of the word (a *long* E) is wholly unaccounted for, the rivers referred to in this connexion, Rhine, Rhone, Riga, Rha, Rye, Rea, Rey, etc., all beginning with an *r* sound. Doubtless we shall be told that 'letters, like soldiers, drop off in a long march'; and be it so. But it is quite another matter to be asked to believe that the Eridanus, a name by no means confined 'to great and strong-running rivers,' since the dirty little Athenian stream bore it, is the small Rhodaune, or the Vistula, etc. Why should Phaëthôn have been said to have fallen into, *e.g.*, the Vistula, and what knowledge had those who spoke of the Eridanus of the former river? Why, again, should the constellation be placed in the south? Surely any northern stream must be seen to be out of the question, and we can but agree with Sir G. C. Lewis when he says: 'An unnecessary attempt has been made by some writers to identify the Eridanus with some real river in the north of Europe, having a name of similar sound.' And he quotes the opinion of Heeren that 'nothing is gained by explaining it to mean the Rhine or the Raduna.'[2]

[1] *Words and Places*, 206–9.

[2] *Astron. of the Ancients*, 465.

XVI.

Can we then discover the Eridanus in the far West? Europe is itself Ereb ('the West'), as Erebos is primarily the western gloom after sunset, being derived from the Assyrian *eribu*, 'to descend, set,' as the sun. Thus the Homerik Cave of Skyllê looks 'towards the west (*i.e.*) to Erebos';[1] Aïdes, as King-of-the-Underworld, is 'Hesperos Theos,'[2] and a 'westward position' was generally adopted by Hellenes when invoking infernal divinities. Odysseus turns towards Erebos to sacrifice,[3] and thence the ghosts assemble.[4] Similarly, the shrines of heroes faced westward, to show that they had once been mortal and had sunk like the Sun in death; for the Sun-god, as *e.g.* the Vedic Yama, 'was the first of men that died, the first who found the way'[5] to the unseen world.[6]

And first, is the Eridanus to be identified with any western river known to geography? Pausanias says: 'The Galatai [Gauls] dwell at the end of Europê,' where the sea is vast, stormy, and infested with wild beasts—like Cetus. 'And through the country runs the river Eridanos, near which it is thought that the Daughters of the Sun lamented the suffering of their brother Phaëthôn.' He adds that the inhabitants formerly called themselves and were called by others 'Keltoi.'[7] Similarly says Nonnos:[8]—

κύμβαχος Ἠελίοιο φεραυγέος ἔκπεσε δίφρου
ἡμιδαὴς Φαέθων, ποταμῷ δ' ἐκρύπτετο Κελτῷ·
καὶ θρασὺν ἡβητῆρα παρ' ὀφρύσιν Ἠριδανοῖο
Ἡλιάδες κινυροῖσιν ἔτι στενάχουσι πετήλοις.

Aischylos wrote a Play called the *Heliades*, of which hardly a line remains, and, as noticed,[9] according to Pliny, placed the Eridanus in Iberia, *i.e.*, the country of the Ebro; his view of an ancient legend is almost always far more valuable than that of Euripides. But when we have exhausted these references, it is just as impossible to connect the Eridanus with any particular western, as with any particular northern, river.

[1] *Od.* xii. 81.
[2] Sophoklês, *Oid. Tyr.* 177.
[3] *Od.* x. 528.
[4] *Ibid.* xi. 37.
[5] *Rig-Veda*, X. xiv. 1, 2.
[6] The proposed identification of *erebos* with the Sk. *ragas* is to be rejected (vide Prof. M. Müller, *Rig-Veda-Sanhita*, i. 42). *Arab* is a variant form.
[7] Paus. I. iii. 5.
[8] *Dionysiakôn*, xxxviii. 92–4.
[9] *Sup.* sec. XIV.

But it may next be asked, Is not Eridanus the stream Ὠκεανοῖο τελήεντος ποταμοῖο,[1] of Ocean, the final stream into which all others fall; and is not the Hesiodik Ἠριδανὸν βαθυδίνην,[2] the equivalent of the Homerik and Hesiodik Ὠκεανὸν βαθυδίνην?[3] Where falls the sinking Phaëthôn but into the Ocean-stream? As saith the poet:

Ἐν δ' ἔπεσ' Ὠκεανῷ λαμπρὸν φάος ἠελίοιο,

even as Hêlios is sent ἐπ' Ὠκεανοῖο ῥοάς.[4] As to the myth itself, Sir G. W. Cox observes: 'The hypothesis of madness was called in to explain the slaughter of the boy Eunomos by Herakles; but it was at the least as reasonable to say that if the sun destroyed the fruits and flowers which his genial warmth had called into life, it must be because some one who had not the skill and the strength of Helios was holding the reins of his chariot. Hence in times of excessive heat or drought the phrase ran that Phaëthôn, the mortal son of an undying father, was unable to guide the horses of Helios, while the thunderstorm which ended the drought dealt also the death-blow to Phaëthôn, and plunged him into the sea.'[5] The Heliades Sir G. W. Cox regards as 'the bright fleecy clouds,' and their tears as 'the down-pouring rain.' Nor is this view of the Eridanus a modern one merely. Hyginus says, 'Complures Oceanum esse dixerunt;'[6] and I cannot but regard this opinion as correct, and that Eridanus, 'the Strong-flowing' = Okeanos. Is, then, this theory of the mysterious stream exhaustive? I greatly doubt it.

XVII.

The Hesiodik list of rivers, children of Okeanos and Tethys, begins with

Νεῖλόν τ' Ἀλφειόν τε και Ἠριδανὸν βαθυδίνην.

The twenty-five rivers mentioned are selections more or less representative, full justice being done to Asia Minor and the Troad, a circumstance accounted for by the poet's father having come from Kymê in Aiolis.[7] Continental western Hellas is represented by the Alpheios, the principal river of the Peloponnesos, the Ache-

[1] Hesiod, *Theog.* 959.
[2] *Ibid.* 338.
[3] *Od.* x. 511; *Erga*, 169.
[4] *Il.* xviii. 240.
[5] *Myth. of the Aryan Nations*, ii. 39.
[6] *Poet. Astron.* ii. 32.
[7] *Erga*, 635.

lôös, the largest river in Hellas, the Peneios, the principal river of Thessalia, the Evenos, a river of Aitolia, and the Ladôn, a river of Arkadia. Remoter foreign parts are represented by Neilos (so called for the first time by a Hellenik poet), Eridanos, Istros (Danube), and Phasis. The remaining sixteen rivers belong to Thrakê and Asia Minor. Professor Paley remarks on the passage :—

'According to the early Greek notions of geography, the Ister was the principal river of Europe, the Nile of Ethiopia, the Eridanus of the Celtic or northern division, and *perhaps* the Phasis of Asia. The Eridanus *seems purely mythical*, though in later times some associated it with the Padus.'[1] That Hesiod referred to the latter river was formerly held, although I think no scholar would now assert this. Thus, for instance, Professor Mahaffy remarks of the *Theogonia* : 'Some parts of the conclusion have been tampered with, especially where Latinus and the Tyrrhenians are mentioned, for though Strabo holds that Hesiod knew Sicily, which supports the theory that he lived after the settlement of that island by the Greeks about 700 B.C., it is absurd to foist upon him any statement about the descent of Latinus from Ithacan parentage.'[2]

And here let me refer to another theory respecting the Eridanus.[3] 'Hunc alii Nilum esse dixerunt,'[4] and, as noticed, supported this opinion by a reason connected with the star *Canopus*. Now, to hold with Strabo, Heeren, and Sir G. C. Lewis that the Eridanus is purely imaginary, fabulous, and exists nowhere, is in fact to contradict the whole philosophy of mythology, nay, even of human thought. A myth, like any other human cogitation, is a suggestion based upon some circumstance. Thus the idea of an Ocean-stream has a vast foundation in fact. Now, Hesiod distinguishes between Eridanus and Okeanos ; he knew, or knew of, the former as a river, and the legend is not in my judgment satisfied by merely explaining the two as identical. The first question is, what was the theory of Hesiod respecting the Eridanus ? He was a Greek of Asiatic descent, and there is not the slightest reason to suppose that he connects the Eridanus with the (to him) unknown regions of the North and West ; or that to him the river was mythical any more than any of the other rivers in his list. Professor Paley has well remarked that Hesiod names the principal river of Europe and the principal river of Ethiopia, but what the Professor means by 'the Celtic or northern division,' as distinct from Europe, is not clear ; nor can I think for a moment that

[1] *Hesiod*, 192.

[2] *Hist. of Classical Gk. Lit.* i. 111–12.

[3] Vide *sup.* sec. V.

[4] Hyginus, *Poet. Astron.* ii. 32.

Hesiod regarded the comparatively puny Phasis, however famous it might be as connected with the mythic expedition of the Argonauts, and as a boundary line between continents,[1] as being the chief river of Asia. In short, strange as the opinion may appear, I am greatly inclined to believe that Hesiod did intend to name the (to him) chief river of Asia, and that he called it the Eridanus.

XVIII.

Herodotos made great efforts to ascertain the source of the Nile, but in vain. The result of his investigations is as follows: 'The course of the Nile is known, not only throughout Egypt, but to the extent of four months' journey either by land or water above the Egyptian boundary. There the direction of the river is *from west to east.* Beyond, no one has any certain knowledge of its course.'[2] This statement of Herodotos that the direction of the Nile at the furthest known point is from west to east, probably assisted in giving rise to the very singular theory that the Nile and the Euphrates were in reality the same river. Pausanias states that both the Phliasians and Sikyonians affirmed that the water of the river Asôpos, which falls into the Korinthian Gulf, was 'foreign and not belonging to the country' (τὸ ὕδωρ ἔπηλυ, καὶ οὐκ ἐγχώριον); and that it was in reality the river Maiandros which, falling into the sea near Milêtos, **ἐς Πελοπόννησον ἔρχεσθαι, καὶ ποιεῖν τὸν Ἀσωπόν.** Asôpos is also a river-name in Boiôtia, Thessalia, and Phrygia; and the Phrygian Asôpos falls into the Lykos, which itself, subterranean in part,[3] falls into the Maiandros; the rationale of the story being that this river-name was brought from Asia into Europe, and thus connected with the Maiandros. But what I wish to point out is, that the idea of far distant and sea-separated streams being (like a river running through a large lake) really identical, is by no means unfamiliar. This theory respecting the Asôpos reminds Pausanias that he had heard the Delians declare that the little river Inôpos on the island **εἶναι σφισιν ἐκ τοῦ Νείλου.** Here we meet with the Nile as credited with a subsea course. His last example is the one particularly in question. 'And in truth report goes that the Nile itself being the Euphrates **ἐς ἕλος ἀφανίζεσθαι,** and again ascending above the Aithiopians became the Nile.'[4] In connexion with this strange report, let us consider the statement of the Scholiast on Aratos that

[1] Vide Herod. iv. 45. [2] Herod. ii. 31. [3] Ibid. vii. 30. [4] Paus. II. v. 2.

the Eridanus 'à quibusdam vero Nilus, qui et Gyon existimatur, et ideo inter sidera collocatus, *quod à meridianis partibus cursum dirigat.*' In illustration of this supposed connexion between Nilus and Gyon, I may refer to the geographical system of Kosmas Indikopleustes, A.D. 535, who, having sailed in Eastern seas, might have easily acquired more local knowledge than his work displays. 'Beyond the ocean in every direction there exists another continent which cannot be reached by man, but of which one part was once inhabited by him before the Deluge. To the east, just as in other maps of the world, and in later systems, he placed the Terrestrial Paradise, and the four rivers that watered Eden, *which came by subterranean channels* to water the post-diluvian earth.'[1] The map of his world shows Europe, Asia, and Africa surrounded by an oblong right-angled Ocean-stream. The Nile divides Asia and Africa,[2] and, having fallen into Okeanos, reappears on the transoceanic continent as Gêôn Potamos; and circles round eastward by a lengthy course to the Terrestrial Paradise.[3] The Tigris and Euphrates, relatively incorrectly placed, flow into a gulf which joins the Ocean-stream, and out of the east side of which runs the Phison. This latter joins the Ocean-stream in the east, and reappears by the Terrestrial Paradise on the farther side. Thus we notice the view :—

1. That the same river may be divided into two distant parts by ocean.
2. That the Eridanus is identical with the Nile.
3. That the Nile is identical with the Euphrates.
4. That the Nile is identical with the Gihon.

This latter theory is probably based upon a misunderstanding of the statement that Gihon, the second branch of the Eden-river, 'compasseth the whole land of Kush.'[4] The Asiatic Kushites have often been confounded with the Kushites on the western side of the Red Sea. The LXX. read Gêôn in Jeremiah, ii. 18, where the original is Sihor, which seems to be a name of the Nile.

Now Hesiod (I do not venture to say with any special intention, or, again, do I deny this) places the Nile and the Eridanus at the head of his river-list with the Alpheios between them; and this latter stream is also especially connected with subterranean and suboceanic courses. For, shortly after its rise in Arkadia it sinks underground, reappears, joins the Eurotas, both sink underground, then the

[1] Ap. Blake, *Astronomical Myths*, 266–7. So Aristaeus is shown 'Omnia sub magnâ labentia flumina terrâ' (Vergil, *Geor.* iv. 366).

[2] Cf. Herod. iv. 45.

[3] Paradeisos = the Iranian *pairidaêza* (= 'peridike,' Prof. Skeat).

[4] *Genesis*, ii. 13.

Alpheios appears again, falls into the Ionian Sea, and in mythic legend, immortalized in Shelley's beautiful poem, chases the nymph Arethousa even as far as the Syracusan Ortygia.[1] If Hesiod means to refer to the Euphrates under the name of Eridanus—a very suitable one,[2] and if he had heard or at all accepted the theory of its real unity with the Nile, he could not better have indirectly illustrated the fact than by placing between them in his list a typical and well-known stream that was said to sink in its course alike under land and sea; and the special epithet applied to the Eridanus, *bathudinês*, 'deep-eddying,' may contain a reference to this idea. That Hesiod might easily, and probably did, know of the Euphrates under some name or other, there is no difficulty in believing. The Eridanus from its constellational position may well, as the Scholiast notes, be supposed to represent some river not in the far north and flowing into the southern ocean. I think it now sufficiently appears why some connected the Eridanus with the Nile, an opinion altogether untenable.

XIX.

Let us here revert to the theory of the Ocean-stream, noted and rejected by Herodotos. He says: 'For my part I know of no river called Ocean, and I think that Homer, or one of the earlier poets, *invented* [!] the name, and introduced it into his poetry.'[3] 'Some say that the Ocean begins in the east, and runs the whole way round the world; but they give no proof that this is really so.'[4] 'For my part, I cannot but laugh when I see numbers of persons drawing maps of the world without any reason to guide them; making, as they do, the Ocean-stream to run all round the earth.'[5] 'The boundaries of Europe are quite unknown, and there is not a man who can say whether any sea girds it round either on the north or on the east.'[6] Such, then, was the popular theory which he in his wisdom thought fit to reject; but which was certainly not invented by Homer, and which moreover is substantially correct.

Now it will of course be remarked that if the Signs of the Zodiac, and also various extra-zodiacal southern constellations are Euphratean in origin or in early

[1] A name mythically connected with *ortyx*, 'a quail.' 'The tale ran that Apollôn and Artemis were both born in Ortygia, the land of the quail, the earliest bird of spring, and thus of the early morning' (Sir G. W. Cox, *Myth. of the Aryan Nations*, ii. 23).

[2] Vide *inf.* sec. XIX.

[3] Herod. ii. 23.

[4] Ibid. iv. 8.

[5] Ibid. 36.

[6] Ibid. 45.

connexion, there is from this circumstance a strong *à priori* probability that the river Eridanus also is connected with the same region. But we have seen every reason to believe that Eridanus, in one phase at least, is identical with Okeanos. Was there then a primitive Kaldean[1] ocean-stream ?

'At the period,' says M. Lenormant, 'when the greatest part of the fragments of the [Kaldean] mag'c collection were composed, the firmament was regarded as a hemispherical skull-cap, the lower edges of which, "the foundations of the heavens," rested upon the extremities of the earth, beyond the great reservoir of waters surrounding the continental surface and *corresponding exactly to the ocean of Homer*. . . . The periodical movements of the planets which were assimilated by their Accadian name to animals endowed with life, took place in a lower zone of the heavens, underneath the firmament of the fixed stars. . . . The firmament supported the ocean of the celestial waters, *viewed under the form of a river*, as was frequently the terrestrial ocean, *which even* assumed the name of "river," ARRA or ARIA.'[2] Here, then, is a Euphratean Okeanos, and an Oversea.

The ideograph representing the Akkadian word *ari.t*,[3] is 𒀀𒇉, *i.e.*, 𒀀 (water) + □ (enclosure) + 𒀸 (going through); it therefore signifies 'river,' *i.e.*, water-going-through-the country, and was rendered by the Assyrian *nahru*, 'river,' whence the Biblical Aram-Naharaim ('Aram-of-the-Two-Rivers'), the Kemic (Egyptian) Naharaina. From this Semitic word *nahar*, as we have seen,[4] the name Nile is derived; and in the Old Testament 'that great river the river Euphrates' is frequently spoken of simply as Nahar, 'the River,' just as Eridanus is called Amnis or Fluvius. It is somewhat singular that on examination Nile and Euphrates should be found to have the same name. The ideograph 𒇉 alone, reads in Akkadian *ziku*, in Assyrian *apsu*, and signifies 'running water,' and also *samu*, 'heaven,' Heb. *shomayîm* (a plural form), showing the connexion in idea with 'the waters above the firmament,' the Oversea, whence falls the rain.[5]

When the Aryan philologist was attempting to explain the name Eridanus, he said it was undecided whether the root *dan* was a 'Celtic or *Scythian* gloss,'

[1] *Apropos* of 'the country of Kaldu' (*Inscription on Black Obelisk of Shalmaneser*, 83), Prof. Sayce remarks: 'This is the primitive Chaldea. The Caldai, or Chaldeans, afterwards overran Babylonia, and gave their name to it among classical writers' (*R. P.* v. 33, note 4).

[2] *Chaldean Magic*, 152-3.

[3] Vide Prof. Sayce, *Assyrian Grammar*, Syllabary, No. 437D.

[4] *Sup.* p. 15.

[5] With *apsu*, 'running water,' cf. *absù*, *abzu*, or *apsu*, 'the abyss,' the deep, the Akkadian *zuab*; *zuab-apsu* appears to be the origin of the occult and archaic word *zaps* (ζάψ), 'the sea,' a term used by several Hellenik poets quoted by Clement of Alexandria (*Stromata*, v. 8).

and also referred to 'the Erse *dana*, 'strong.'[1] But in Akkadian, too, *dan* signifies 'strong,'[2] which appears in an Assyrian form as *dannu*, *danu*, 'to judge;' and as the Sun-god is 'the Judge of heaven and earth,'[3] he is Dian-nisi, 'the Judge of Men,' the Hellenik Dionysos.[4] Hence also comes the Hebrew *dan*, 'a judge'; and the paranomasia 'Dan shall *judge* his people.'[5] And now we have the Akkadian Ocean-stream called Aria, 'the River,' and we have come to the conclusion, from sources Aryan, Scythian, etc., that Eridanus signifies 'the Strong-flowing.' Will it be thought at all far-fetched or improbable to read Eridanus in Arra-dan or Aria-dan, 'the Strong-river,' whether applied to Euphrates,[6] Okeanos, the Oversea, or any portion of this? I think that the combined weight of the various portions of the evidence, stellar, historical, and philological, fully justifies the theory.

But besides the Oversea, 'mare magnum sine fine,' and the heavenly Rain-river, there is another ouranik and doubtless preconstellational stream; namely, the *Via Lactea*, the *Circulus Lacteus*, often pictorially represented by an ellipse of stars, like a heaven-girding ocean-stream, held by a female figure. Fox Talbot quotes a passage from the Inscriptions:—

> 'He who stabs his flesh in honour of Istar, the goddess unrivalled,
> Like the stars of heaven he shall shine; like the River of Night he shall flow.'

And he adds, 'By "the river of night" I understand the Milky Way,'[7] which I would connect with the heavenly Eridanus, subsequently reduplicated in the particular constellation of that name.

XX.

In mythological astronomy the world below is translated to the world above, and the flocks and animals and human characters of earth reappear in the sky. And not only so, but terrestrial geography also is reduplicated celestially. Thus Hâpi, the Nile, reappears on high as a quasi-divinity, and the poet sings:—

> 'Hail to thee, O Nile!
> Coming in peace, giving life to Egypt:

[1] *Sup.* p. 36.
[2] Vide Sayce, *Assyrian Grammar*, Syl. No. 241.
[3] *Black Obelisk*, i. 8.
[4] Vide R. B. Jr., *G. D. M.* ii. 209 *Academy*, Aug. 19, 1882.
[5] *Genesis*, xlix. 16.
[6] Herodotos describes the Euphrates as 'a broad, deep, swift stream' (Herod. i. 180).
[7] *T.* ii. 53.

O Amen (thou) leadest night unto day,
A leading that rejoices the heart!
Overflowing the gardens created by Ra.
Watering the land without ceasing:
The way of heaven descending.[1]'

It would be apart from the consideration of the present subject to speak generally of the noble and eminently monotheistic hymn above quoted. Suffice it to remark that the personified Nile, intimately connected with 'the Hidden-god' (Amen) revealed in the Sun-god Ra ('the Maker'), inundates the blessed gardens of the skies which the Sun has made, in the same way that the Nile-river inundated the 'Holy-land' on earth. Thus the Osirian, or Soul after death seeking union and communion with Asar,[2] pacifies 'by offerings of food and grain' a mystical serpent who resides 'at the mouth of the heavenly Nile';[3] and a vignette attached to the CXth Chapter of the *Funereal Ritual*, which treats of 'The going in Peace, and taking the good Path to the Fields of Peace' (=the Gardens of Ra), shows the scene 'surrounded by the Celestial Nile.'[4]

A translation to the skies of a favourite and revered stream, is therefore an idea familiar to the archaic period; nor would it be at all surprising to find the Euphrates reduplicated in the constellational Eridanus.

XXI.

The Biblical Gan-Êden[5] or 'Garden of Eden' is described as being situated in Eden, a region east of Palestine, and apparently of wide extent. Thus Shalmaneser alludes to 'cities of Adennu,' which locality is, according to Professor Sayce, 'the Eden of Scripture'; and these cities were situated at no very great distance from Hamath.[6] The river that watered the Paradise became four streams, Pison, Gihon, Hiddekel, and Perâth; and the weight of modern scientific opinion (with some noteworthy exceptions) agrees that the Garden is represented as being situated in Central Babylonia, a view maintained of old by Calvin, Bochart, and others. The western desert was called by the Akkadai ('Highlanders'—

[1] *Hymn to the Nile* (*R. P.* iv. 107).

[2] Lauth suggests that the name signifies 'Son-of-the-earth, but this is very doubtful.

[3] Cooper, *Serpent Myths of Anct. Egypt*, 55.

[4] Dr. Birch, in Bunsen's *Egypt's Place*, v. 244.

[5] In connexion with this subject I have carefully considered the opposing theories of Delitzsch (*Wo lag das Paradies?* 1881) and Lenormant (*Les Origines.* t. ii. pt. 1, 1882). The Ak. *gana*, 'enclosure,' whence the As. *ginu* and Heb. *gan*, is the exact equivalent of *pairi-daeza* (vide *sup.* p. 41).

[6] Vide *R. P.* iii. 99.

from Elam) Edinna, whilst Sargina (Sargon, B.C. 722–705) styles Elam 'the country of the four rivers.' Similarly, an Akkadian hymn to Istar (Ashtareth-Astartê) addresses her as :—

> 'Lady, Queen of the land of Erech.
> Lady, Queen of the land of the Four Rivers of Erech.[1]'

Erech,[2] 'the seat of Anu and Istar,'[3] 'was Uruk [the Orchoê of the Greeks, now Warka], the great city of the south of Babylonia.'[4] As to the four rivers, Pison, according to Delitzsch, is an Akkadian word for 'canal,' and should be identified with the canal Pallakopas, and Gihon with the canal Shatt-en-Nil; but, according to Professor Sayce, the attempts hitherto made to find the word 'Gihon' in the Inscriptions are unsuccessful. Both these canals were probably originally river-beds. Sir H. C. Rawlinson would identify the Gihon 'with the modern Jukhá, which runs past the site of Eridu,'[5] another of the most ancient cities of the country. Others, however, connect the Gihon with the Arakhtu (Araxes), 'the river of Babylon, which flowed westward into the desert of Arabia or Cush.'[6] The third river is called in Akkadian Masgugar ('the Current') and Idiqla (=*hid-dagal*, 'river-great'), Heb. Hiddeqel, or Diqlat, in Aramean Diglat, in Syriac Deqlat, and in Arabic Dedjlat. This name the Medes turned into Tigra ('Arrow') in allusion to the 'rapidus Tigris.'[7] It was also named Tibilti ('the Stream-of-fertility') and Babilat Nukhsi ('the Stream-of-Gladness'). The fourth river is that renowned stream styled 'the Life-of-the-land,'[8] and called Ak. Purat ('the Curving-water'), As. Puratu and Uruttu, Heb. Perâth, Kemic Puharta, Median Uprato, Old Pers. Ufratu (whence the classical 'Euphrates'), Later Pers. Frât, and of which it is said in the *Bundahis*: 'The sources of the Frât river are from the frontier of Arûm, it flows to the Diglat river; and of this Frât it is that they produce irrigation over the land.'[9]

And now *apropos* of Paradise and the Euphrates, let me quote a beautiful and familiar passage from Vergil. Aeneas and his guide reach the abodes of bliss, and the hero is conducted 'per amplum Elysium' :—

> 'Devenere locos laetos, et amoena vireta
> Fortunatorum nemorum, sedesque beatas.

[1] Ap. Prof. Sayce, *R. P.* v. 159.
[2] *Genesis*, x. 10.
[3] *The Exploits of Dibbara*, ii. 4.
[4] *C. A. G.* 192.
[5] *Ibid.* 84.
[6] *Ibid.* Cf. *Genesis*, ii. 13.
[7] Horace, *Car.* IV. xiv. 46.
[8] Vide *R. P.* i. 30, note 2.
[9] *Bundahis*, xx. 10.

Largior hic campos aether et lumine vestit
Purpureo: solemque suum, sua sidera nôrunt.
Hic genus antiquum Teucri pulcherrima proles,
Ilusque, Assaracusque, et Trojae Dardanus auctor.
. . . .
'Conspicit ecce alios dextrâ laevâque per herbam
Vescentes, laetumque choro paeana canentes,
Inter odoratum lauri nemus: *unde supernè*
Plurimus Eridani per sylvam volvitur amnis.'[1]

These are the abodes of joy, the happy groves where dwell the august elders of the Trojan race; whose names, Ilus,[2] Assaracus,[3] and Dardanus,[4] have a strangely Euphratean aspect. And here, too, a radiant band hymn the Sun-god—their own Sun-god, the glorified divinity of the Underworld—amid a fragrant grove of laurel. Similarly sang Stesichoros centuries earlier how Halios, the son of Hyperiôn (the 'Climbing' sun of morning) sailed across ocean in his golden boat-cup to see his dear ones in the sacred laurel grove;[5] and we may well admire both 'the exquisite erudition' of Vergil and his faithful preservation of archaic idea.' For the laurel, Daphnê, 'root-bound that fled Apollo,' is the 'Bright';[6] and so the Sun-gods Apollôn and Dionysos are alike called Philodaphnos. And strangely enough, we meet with this same mystic laurel in Euphratean regions, for it is:—

'The baleful tree that breaks in pieces the incubi,
The name whereof Hea remembers in his heart,
In the mighty enclosure, the girdle of Eridu.'[7]

And Marduk, in the myth, is ordered to fetch it, in order that by its means 'the seven evil spirits may be driven away.'[8]

From this bright upper grove of solar radiance descends in ample stream Eridanus, a statement most remarkable in itself, and one which has sorely exercised Scholiasts. But does not Nile overflow the gardens of the Sun-god and descend the way of heaven?[9] Yes, surely, for as Homer tells us, he is Diipetes'[10] ('the

[1] *Aeneid*, vi. 638–41, 648–50, 656–9.

[2] Cf. the Akkadian Elu-m, and the Assyrian Ilu ('god'), the West-Semitic El ('the Strong'), the Phoenician Eli-un. Eloah ('Fear'), plu. Elohîm, Arabic Ilâh, and with the article Al-Ilâh (=Allâh), is thought by many scholars to be unconnected with El.

[3] Cf. Sar (Assoros), the upper expanse. 'Sar is generally read Assur as a deity in later times' (*C. A. G.* 61).

[4] Cf. the Assyrian Tartan ('Strong-chief,' Isaiah, xx. 1) or Commander-in-Chief (cf. 2 *Kings*, xviii. 17). The Ak. *dar*, As. *gisru*='strong;' and the Ak. *dan*, As. *dannu*, also='strong;' the Dardan is 'the Strong-one-of-the-strong.' 'In the time of Ramses II. the Hittites were able to summon to their help . . . the Dardani of the Troad' (Prof. Sayce, in *T.* vii. 271). The 'Derdeni' seem to have been a maritime nation (vide *Ibid.* 390).

[5] Vide R. B. Jr., *U.* 90.

[6] Vide Prof. Max Müller, *Lects. Sci. Lang.* ii. 549, note.

[7] Vide *inf.* sec. XXIII.

[8] *C. A. G.* 106.

[9] Vide *sup.* sec. XX.

[10] *Od.* iv. 477.

Sky-fallen'); and as Plutarch says, 'The Nile is an emanation of Osiris.'[1] The bright Sun from the heavenly Oversea on high, sends down to earth in refreshing streams of rain those waters which he, as the Lion-sun, first draws up from earth to heaven;[2] and so Eridanus as a celestial river descends from above. But the bright solar grove is not only on high, it is also in the west; and thus the Eridanus, having descended, rolls through the wood and becomes connected with the Ocean-stream. For the wood is composed of those 'shining trees,' blazing with flowers of gold, of which Pindar speaks in lovely song; and 'the ocean breezes (*ὠκεανίδες αὖραι*) blow around the island of the blessed,' even as the celestial Nile surrounds the Fields of Peace which were made by the Sun-god, call him Samas, Ra, Osiris, Hêlios, or Apollôn. So we read:—

'Said by the Majesty of the god [*i.e.*, Ra],
Let a field of rest extend itself, and there arose a field of rest.[3]
Let the plants grow there,
And there arose the Field Aalu,'[4]

the Kemic Elysium, the '*Ἠλύσιον πεδίον*,'[5] 'the Plain of the Coming'[6] (of the Sun-god), situate at *πείρατα γαίης*. And there dwells the glorified Sun-god, 'the golden-haired [cf. Dionysos Chrysokomês] Rhadamanthys,' the Kemic Rhotamenti ('Judge-of-the-Hidden-World'); and there is to dwell 'the golden-haired Menelaos,' son-in-law of Zeus. Kronos, says Pindar, has 'the highest throne of all.' And who is Kronos? Not the discredited and overthrown sire and opponent of Zeus, but, as I have elsewhere shown,[7] Karnos, Apollôn, Karneios, the radiate (horned) Sun-god, the true Lord and Maker of Time, whose pristine unity is endlessly reduplicated. Kronos is Rhadamanthys, but in Pindar they have become separate personages; and Rhadamanthys is the 'Associate' of the 'husband of Rhea' (*πόσις Ῥέας*). Other glorified heroes are there, such as Kadmos ('the Easterner'),[8] the orient Sun arrived at length at 'the happy West'; and Achilleus, healed of his mortal foot-wound.[9] There life is easiest, nor snow, nor storm, nor rain breaks the harmony of being—

'But from the breezy deep the blest inhale
The fragrant murmurs of the western gale.'

[1] *Peri Is.* xxxviii.

[2] For further illustration of this subject, vide *U.* 82. So in an astronomical Babylonian Inscription we read: 'The Sun sets and draws water' (*T.* iii. 224).

[3] Cf. the *Fiat lux.*

[4] *The Destruction of Mankind*, 39, 40, ap. M. Naville (*R. P.* vi. 109).

[5] *Od* iv. 563.

[6] *ἤλυσις* = *ἔλευσις*.

[7] Vide R. B. Jr., *G. D. M.* ii. 125, *et seq.*; *U.* 40.

[8] Vide *G. D. M.* ii. 235, *et seq.*; *U.* 89.

[9] Vide *sup.* sec. V.

Okeanos sends forth the breeze of the reviving Zephyros, the wind of Zophos, the Erebos-gloom ; for the West is at once the special home of both light and darkness. The blessed 'accomplish the path of Zeus,' *i.e.*, complete their course, 'at the secure-abode (*τύρσιν*) of Kronos.'[1] The *tursis* of Pindar is the exact equivalent of the *Pairidaêza* of Iran, the secure abode of the crew of the Argô when they have crossed the Eridanus.[2] The 'Amnis Phaëtontius' is no longer 'swollen with tears ;'[3] in these blessed regions they are wiped from all eyes. Pherekydes the Athenian speaks of Rhadamanthys as the ruler in 'the islands of the blessed' (*μακάρων νήσους*) ;[4] and I may conclude with the testimony of Hesiod, who says that Zeus gave after death to the heroes of Troy and Thebes a dwelling apart from gods (in heaven) and men (on earth) at 'the ends of the earth' (*πείρατα γαίης*), which, as we have seen, is the Homerik expression. As with Pindar, it is the realm of Kronos-Hêlios. *Τοῖσιν Κρόνος ἐμβασιλεύει.*

> 'And thus they dwell with spirit free from care,
> In blessed isles, by Ocean's eddying stream.'

And the 'fruitful [lit. 'zea-giving,' *zeia* being a kind of grain, spelt] cornland (*ἄρουρα*) bears *thrice* a year grain sweet as honey.'[5] Here, again, we have the solar king and his glorified train in the western realm of bliss at the earth-end by the 'deep-eddying (*βαθυδίνην*) Okeanos,' 'the deep-eddying Eridanos.' And the alleged extraordinary fertility of the soil seems a memento of Euphratean richness, of the 'ager totius Asiae fertilissimus,'[6] respecting which Herodotos says that 'in grain it is so fruitful as to yield commonly two hundred-fold, and when the production is at its greatest even *three* hundred-fold ;'[7] whilst Theophrastos states that 'in Babylonia the wheat-fields are regularly mown twice, and then fed off with beasts,'[8] and Strabo agrees that 'the country produces barley on a scale not known elsewhere.'[9] Let us in order to preserve lucidity, a difficult matter

[1] Pindar, *Olymp.* ii. 70.

[2] So Apollodoros, I. ix. 24 : Ἀργοναύταις τὸν Ἠριδανὸν ποταμὸν παραπλέουσι.

[3] Aratos, *Phainomena*, 360.

[4] *Fragment* xxxix. The Aryan root *mak*, 'to be able,' 'have power,' supplies, amongst other words, *μέγ-ας*, *μάκ-ρο-ς* ('far-reaching'), and *μάκ-αρ*, which means (1) 'strong,' hence (2) 'fortunate,' hence (3) 'blessed' (applied to the gods, 'the Strong-ones'), hence (4) 'wealthy.' The bright solar divinities are of course rich in gold, a metal, as Geiger (*Development of the Human Race*, 109) well notes, originally owing its importance to its yellow (sun) colour, which made it at once semi-sacred and symbolic long ere it received an artificial commercial value. But the Aryan *makar* is homonymous with the Semitic *makar* (*i.e.* Melqarth Bakchos), the golden Sun-god, who so often appears in various phases in the Mediterranean; and the 'islands of the blessed' are, of course, the special abode of Melqarth-Rhadamanthys (vide R. B. Jr., *G. D. M.* ii. 286, *et seq.*). The interpenetration of Aryan and non-Aryan names and myths in this part of the world requires the most careful treatment.

[5] *Erga*, 165–71.

[6] Pliny, *Hist. Nat.* vi. 26.

[7] Herod. i. 193.

[8] *Peri Phutôn Historia*, viii. 7.

[9] Strabo, XVI. i. 14.

in so complicated an inquiry, note in order the different leading ideas thus connected with the River.

I. A river such as the Euphrates, was really, as it was called, 'the Life of the Land,' and is of almost infinite importance in the progress and advancement of a race.

II. It was in idea reduplicated in an Ocean-stream, a secondary and derivative concept, the result of a kosmical theory.

III. The Euphrates, the Eridanus (Ariadan), the Nile, and the Okeanos, are each connected with some kind of Paradise, Happy Gardens, Elysium, Islands of the Blessed.

IV. The Oversea is a reduplication of the Undersea (Okeanos), being also directly suggested by rainfall.

V. The river of the skies may glow in light,[1] as well as descend in rain.

VI. The home of the Blessed (*Μάκαρες*) [2] lies in the direction of the setting sun.[3]

VII. The river is particularly connected with the Sun, and the Sun with the River.

XXII.

The sisters of Phaëthôn were, as we have seen,[4] changed into poplars, an incident in the legend which must next be considered. The Sun falls into the western Ocean-stream, and the West has thus a double and apparently utterly contradictory aspect. It is the especial home both of light and darkness ; of light which accompanies the solar course and is connected with the unseen and blissful regions into which the Sun passes ; and of the erebos-darkness which follows his disappearance when, in the words of Homer, 'Night starts from heaven.' Now in the West there is a change of colour (if the term may be allowed), namely, from white (light) to black, and in the East there is a corresponding change from black (night) to white ; and this circumstance has not escaped the mythic fancy. Thus the Crow, the bird of Apollôn and the constellational *Corvus*, was originally white, but according to the legend was changed to black by his master in consequence of bringing some unlucky news, 'fuerit antea candidus, pro incommodo

[1] Vide *inf.* sec. XXX. as to the Milky Way.

[2] An epithet specially given to the dead—*Μακάριοι οἱ νεκροὶ*—since no one can in this life attain to perfect blessedness.

[3] Vide R. B. Jr., *The Archaic Solar Cult of Egypt* (in the *Theological Review*, Oct. 1878–Jan. 1879).

[4] *Sup.* sec. XIII.

nuncio, eum nigrum fecisse.'[1] The Vedic solar Yama at times takes the form of a crow, and 'during the war against the giants Apollo transforms himself into a crow, but probably into a white one, as white crows were dedicated to the sun.'[2] But the sun dies in the West, so that 'Go to the crows' comes to mean 'die';[3] and again, 'out of darkness comes forth light, the sun; from the black night the clear day; from the black crow the white one.'[4]

The Heliades similarly change from white to black, and the poplar, like the crow, is of two kinds—λεύκη, *populus alba*, sacred to the solar Heraklês, and αἴγειρος, the black poplar, which suitably enough formed with the willow the ἄλσεα Περσεφονειής.[5] The western groves, like the West itself, are either bright or dark, laurel or poplar. Leukê ('the Bright') is personified as a nymph, the daughter of Okeanos, who, having been carried away by the god of the Underworld, was changed when in Elysion into a white poplar;[6] that is to say, the Underworld swallows up the bright light of evening, and *leukê* = (both) 'white' (as is one kind of poplar) and 'bright.' Thus we find alike the black and white poplar in the west by the Ocean-stream.[7]

XXIII.

Eridanus and Euphrates are thus connected by various delicate links of evidence, *e.g.* (1) Each is frequently alluded to as 'the River'—Amnis—Nahar. (2) The Eridanus is a long and winding stream; the Euphrates is similarly Purat ('the Curving-water'). (3) The Eridanus has two great branches; this feature reappears in the Tigris and Euphrates of the land of Akkad. (4) Each river is connected with a Paradise, a very special and remarkable incident. (5) The fellow-constellations of Eridanus, or almost all of them, are distinctly Euphratean. (6) Each river was in some way connected with the Nile. But there is a further link between them, also of a very special character, *i.e.* the neighbourhood of each is the scene of the overthrow of the Sun-god. The myth of the Akkadian Duzi or Dumuzi ('the [only] son'), *i.e.* the solitary solar orb, Melqarth who hunts alone, the lonely Bellerophôn, and the unaccompanied Oriôn,

1 Hyginus, *Poet. Astron.* ii. 40.
2 Gubernatis, *Zoological Mythology*, ii. 254.
3 Cf. Aristophanes, *Batrachoi*, 187: ἐς κόρακας.
4 Gubernatis, *Zoological Mythology*, ii. 257.
5 *Od.* x. 509–10.
6 Servius, ad. Vergil, *Eclog.* vii. 61.
7 For further consideration of the occult and archaic myth of the Grove of the Underworld, vide R. B. Jr., *U.*, sec. xii.

who appears westward as the Syrian Tammuz and the Hellenik Athamas,[1] 'in Ionic Tammas.'[2] and the legend of the descent of Istar (Ishtar—Ashtoret—Athtoret—Aphtoret—Aphrotet—Aphroditê) to the Underworld to seek him are now too familiar to require a detailed reference. Tammuz-Adonis is wounded by night and winter, and a general lamentation (often alluded to in the Old Testament)[3] ensues. In process of time Euemerism seized upon the story, and endeavoured to make it historical. Thus, according to the interesting version given by Maimonides,[4] a prophet who was called Tammuz invited a certain king to worship the Seven Planets and the twelve Signs of the Zodiac. Upon this the king had him put to death in a cruel manner, and on the night of his death all the idols of the different countries of the earth assembled in the Temple of Babylon, before the great golden statue of the sun which was hung between earth and heaven. This image made to them a funeral oration for Tammuz, and related what had befallen him ; and all the idols wept and groaned all night, and in the morning flew away to their temples in the various countries of the earth.

Now just as the fall of Phaëthôn and the trees of light and darkness are connected with the banks of the Eridanus, so the fall of Tammuz and trees of light and darkness are connected with the banks of the Euphrates. One of the very oldest[5] cities of Babylonia was Eridu or Eridhu, often called 'the Good City,' 'the Rata of Ptolemy, near the junction of the Euphrates and Tigris, on the Arabian side of the river.'[6] 'Sir Henry Rawlinson has endeavoured to show that Eridu, the city of Hea, was identical with the Biblical Garden of Eden.'[7] Be this as it may, it is to be noticed that 'an old name of Babylon, or of a part of Babylon, was Din-Tir, "the life of the forest";' and 'the special spot in which the site of the tree of life was localized was close to the city of Eridu, where the solar hero Tammuz was supposed to have received the death-blow which obliged him to spend one-half of the year [*i.e.* primarily the nights] in the lower world.'[8] The following ancient Akkadian Hymn, translated by Prof. Sayce, treats of the wondrous Tree and of the Tammuz-sun in connexion with Eridu :—

> 'In Eridu a dark pine[9] grew, in an illustrious [or holy] place it was planted,
> Its (root) was of white crystal which spread towards the deep.'

[1] As to Athamas, vide R. B. Jr., *G. D. M.* i. 246, *et seq.*; *U.* 28, 59.

[2] K. O. Müller, *Orchomenos und die Minyer*, 156.

[3] Vide R. B. Jr., *L. K. O.* sec. xiv.

[4] *More Nevouchim*, iii. 29.

[5] Vide *C. A. G.* 46.

[6] Prof. Sayce, in *R. P.* ix. 144.

[7] *C. A. G.* 72.

[8] *Ibid.* 85.

[9] In rendering the Legend of Khumbaba, George

The student of mythology will at once remember Yggdrasil, the kosmic ash-tree of Norse mythology,[1] which had three roots far apart; the first reached to the abode of the gods, and the second to that of the frost-giants. But the word 'root' is conjectural, and Prof. Sayce at first suggested 'crown,' which I think applies equally well, the meaning in this case being that the tree reached to heaven, the upper deep, 'the firmament as the colour of crystal.'[2] If this be the correct view (and either will suffice), the upper part of the Tree was white and the lower dark, corresponding with the black and white poplar.

'The (river[3]) of Hea (was) its pasturage in Eridu, a canal full of (water).'

It is to be borne in mind that the general mythologic and kosmical ideas were in this case evidently connected primarily with the features of the particular locality. This local stream was the Euphrates or a canal connected with it.

'Its seat (was) the (central) place of this earth.'

Similarly, Egypt, Jerusalem, and Delphoi, all claim to be earth-centres.

'Its shrine (was) the couch of mother Zicum.
The (roof) of its illustrious temple like a forest spread its shade;
There (was) none who within entered not.
(It was the seat) of the mighty Mother, the begetter of Anu.'

The Tree extended to heaven, and the dark nocturnal canopy which, 'like a forest spread its shade,' formed the roof of its abode, which was also the residence of the 'mighty Mother.' Zicum, or Ziku, the Sigê[4] of Damaskios, is *τὴν μίαν τῶν ὅλων ἀρχήν*,[5] 'the primitive substance of the universe,'[6] the encircling heaven which, as gods (or manifestations of gods) and men, appeared in it or under it, is spoken of, as in Egypt, as a female, a mother.[7] Now 𒍣, the ideograph of the Akkadian word *zi*, 'life,' 'spirit' (*e.g.*, Zi-ana, 'the Spirit of the heaven'), the Assyrian *napistu*, Heb. *nepesh*, can be traced back to a linear Babylonian form

Smith observes: '*Erini* is used for a tall fine tree. I have translated the word "pine."' 'The conventional tree of the myth' varies in kind, and 'is often a palm (Euphratean type), or poplaresque (Kemic type), the two being found jointly under Phoenician influence' (R. B. Jr., *U.* 88).

[1] Vide R. B. Jr., *R. M. A.*, secs. xi., xvii; *U.* 89.

[2] *Ezekiel*, i. 22.

[3] Professor Sayce suggests 'shrine;' I prefer the reading in the text.

[4] Often erroneously rendered 'in silence.'

[5] Damaskios, *Peri Archôn*, cxxv.

[6] Prof. Sayce, *Academy*, March 20, 1875.

[7] I would, however, observe that Zi-ku, which signifies 'the High-spirit,' or, according to Prof. Sayce, 'the god of illustrious life' (*C. A. G.* 76), is also regarded as a male, and identified in one Hymn with the creator Hea.

which originally represented 'a flower growing up with open leaves, and hence 'life' in general';[1] and is very similar to 𒄀, *gi*, 'a reed,' which appears in the linear Babylonian as 'a rude representation of one of those gigantic reeds so common in the marshes of Mesopotamia.'[2]

With this design may be compared some tree-patterns upon the so-called Whorls found by Dr. Schliemann on or near the site of Troy. There is therefore the closest connexion between the Universe regarded as vital (Zicum), and the Kosmic Tree of Life (the Pine, so called). The shrine of the latter is the couch of the former, who is 'the begetter [combining, I presume, male and female potentialities] of Anu in somewhat the same sense in which Rhea is the mother of Zeus. Lastly :—

'Within it [the Pine] (also was) Duzi.'

As 'the most sacred place or seat of the [Norse] gods is by the ash Yggdrasil, where they daily sit in judgment,'[3] so a special abode of the Sun-god Tammuz was the Pine of Eridu, in which apparently the wounded god concealed himself; and it thus becomes identified with the bright laurel grove of the West, where the Sun-god reigns in hidden splendour. We naturally find, therefore, that the solar Izdubar, when on his expedition against 'the tyrant Khumbaba' ('the Maker-of-darkness'), *i.e.*, the Storm-cloud,[4] whose name reappears in the form **Κομβάβος** in the treatise *Peri tês Suriês Theou*,—

'Saw the land of the pine trees,
The seat of the gods, the sanctuary of the angels.
Good was its shadow full of pleasure,
An excellent tree, the choice of the forest.'[5]

And again, in his wanderings, he comes to some noble tree which—

'To the forest of the trees of the gods in appearance was equal.
Emeralds it carried as its fruit,
The branch refuses not to support a canopy.[6]
Crystals they carry as shoots (?)
Fruit they carry, and to the sight it is glistening.[7]'

[1] Prof. Sayce, in Rev. Wm. Houghton's *Picture Origin of the Assyrian Syllabary*, 20, note 2.
[2] Rev. Wm. Houghton, *Ibid.* 20.
[3] Thorpe, *Northern Mythology*, i. 11.
[4] W. St. Chad Boscawen, in *Modern Thought*, Sept. 1882, p. 327.
[5] *C. A. G.* 222.
[6] *I.e.* like the Irminsul, Atlas, and 'the Winged Oak' of Pherekydes (vide R. B. Jr., *U.* 89), it sustained heaven.
[7] *C. A. G.* 263.

We know this grove well. Has Pindar translated the old Akkadian Epic when he says of the blessed western abodes :[1]—

ἄνθεμα δὲ χρουσοῦ φλέγει,
τὰ μὲν χερσόθεν ἀπ' ἀγλαῶν δενδρέων, ὕδωρ δ' ἄλλα φέρβει,

the sustaining water of life. These bright groves form 'the Garden of the Hesperides, where are the golden solar apples of life that resemble the fruit shown on the Conventional Tree, and were guarded in the unseen world by Ladôn ('the Lurker'),[2] the 'monster serpent or dragon' of darkness 'which, like the Norse Nidhoggr ('Gnawing-serpent'), coils around the roots of the Sacred Tree.'[3] As Tammuz is in the Pine, so the solar Dionysos is Dendritês,[4] ('Lord-of-the-Tree'). Here then by the Euphrates are mystic trees dark and bright, and here is the locality of the fall of Tammuz. The sun seems actually to have been called 'the Star of the Euphrates.'[5]

XXIV.

Archaic Constellations—Egypt.—Let us next, in further illustration of the subject, notice some instances of archaic constellational astronomy. The Kemic system appears to have been of independent origin, and neither borrowed from nor lent to the Euphrates Valley. Amongst other constellations we find :—

The *Thigh*. *Ursa Major*.

The *Leg*. Probably *Cassiopeïa*.

The *Goose*. Mr. Renouf regards *α Arietis* as the *Head of the Goose*, a part specially mentioned.

The *Chu*. The *Pleïades*.

Sahu. *Orion*.

The *Lion*, with its *Head* and *Tail*. Partly *Leo*.

The *Lute-bearer*.

The *Hippopotamus*.

The *Many Stars*. Part of *Coma Berenices*.

'Some of these constellations,' observes Mr. Renouf, 'must have been of enormous extent.' Most of them occur in a Calendar of Observations discovered

[1] Vide *sup.* sec. XXI.
[2] Cf. Lêtô, Lêda, etc.
[3] R. B. Jr., *U.* 90-1.
[4] Pindar, *Frag.* cxxx.
[5] *T.* iii. 167.

in royal tombs of the XXth Dynasty, cir. B.C. 1200–1100.[1] The Egyptian Zodiacs of Greek and Roman times are somewhat confused combinations of Kemic and foreign systems, and do not require notice in the present connexion. It thus appears that star-groups (constellations), as well as individual stellar nomenclature, obtained in Kemic idea at an archaic period; and the next fact, and one to which I would call special attention, is that the ideograph representing a five-rayed star, read phonetically *sb*, signified (1) a star, and (2) constellations, *e.g.* the *Thigh*.

China.—In China, again, we find another independent Zodiac, here truly so called, the Signs of which are the *Tiger*, *Hare* (or *Rabbit*), *Dragon*, *Serpent*, *Horse*, *Ram*, *Ape*, *Cock* (or *Hen*), *Dog*, *Wild Boar* (or *Pig*), *Rat* (or *Mouse*), and *Ox* (or *Bull*). Other ancient Chinese constellations were the *Great Bridge*, the *Quail's Head*, the *Quail's Tail*, the *Cleft Tree*,[2] the *Ladle*, the *Sieve*, the *Weaving Sisters*, and the *Draught Oxen*. The *Weaving Sisters* are three stars in *Lyra*, the *Sieve* is in *Sagittarius*, as is the *Ladle*; the *Draught Oxen* forms the neck of *Aquila*. The *Hyades* are called the *Rabbit-net*.[3] The grouping of asterisms on the Chinese Celestial Atlas by lines drawn from one star to another, is similar to that on a Euphratean planisphere now in the British Museum. Here again in the far East we find the idea of constellations, which indeed must necessarily have arisen in the mind from the appearance of the stars in the sky.

Another independent series of asterisms is displayed in the Rabbinical doctrine which grouped the stars in the shapes of the Hebrew letters, and made the heavens literally the book of fate. Isaiah, xxxiv. 4 was quoted in this connexion.[4]

XXV.

Archaic Constellations.—Palestine.—In the Authorized Version of the Old Testament we find mention is made of the Eleven Stars,[5] the Planets,[6] Arcturus,[7] Orion,[8] the Pleïades,[9] Mazzaroth,[10] the Constellations,[11] and the Seven Stars.[12]

[1] Vide P. le Page Renouf, in *T.* iii. 400, *et seq.*

[2] Vide Williams, *Observations of Comets, Extracted from the Chinese Annals*, 1871.

[3] Vide Legge, *The She King*, 1876.

[4] Vide Gaffarel, *Curiosites Inouyes sur la Sculpture Talismanique*, etc., Rouen, 1632.

[5] *Genesis*, xxvii. 9.

[6] 2 *Kings*, xxiii. 5.

[7] *Job*, ix. 9; xxxviii. 32.

[8] *Job*, ix. 9; xxxviii. 31; Amos, v. 8.

[9] *Job*, ix. 9; xxxviii. 31.

[10] *Job*, xxxviii. 32.

[11] Isaiah, xiii. 10.

[12] Amos, v. 8.

'Black-robed'[1] priests and their followers burnt incense to sun, moon, and all the host of heaven, and bowed down to them upon the flat roofs.[2]

The LXX. for 'the Planets,' read *μαζουρὼθ*; for 'the Constellations,' *ὁ Ὠρίων καὶ πᾶς ὁ κόσμος τοῦ οὐρανοῦ*; and in Job, ix. 9, insert *Hesperos* instead of *Orion*. They make no mention of 'the Seven Stars,' which probably refer to the *Pleïades*. Isaiah, xiii. 10 reads :—'For the stars of heaven and *Orion* and the whole orderly-array (*κόσμος*) of heaven shall not give their light.' The band of constellations, headed by *Orion*, is here plainly alluded to.

The Hebrew reads *Mazolôth* (A.V. 'Planets'), *Aish* (A.V. 'Arcturus'), *Kesel* (A.V. 'Orion'), 'the Strong'; *Kimah* (A.V. 'The Pleïades'), and *Kisîlîm* (A.V. 'The Constellations'). It is unnecessary to enter in detail into the various theories to which these terms have given rise, my object being merely to show that the concept of constellations is one familiar to Palestinian, Syrian, and Arabian regions. Thus *Aish* is by some identified with *Alcyone*, the brightest Pleïad; whilst Gesenius and Tregelles regard it as being *Ursa Major*, 'her (Heb.) sons' being 'the three stars in the tail of the bear,' a constellation called in Arabic the *Bier* (cf. *Wain*). As to *Mazzaroth*, which some supposed to be the *Hyades*, there is, I think, now no reasonable doubt that the traditional Jewish opinion, with which Gesenius and Tregelles agree, which identifies the term with the Signs of the Zodiac is absolutely correct; for the obscure word appears in Assyrian as Mazarati, the equivalent of the Akkadian Innun, with the meaning 'watches,' various passages in the Inscriptions combining to show that 'the Mazzaroth were probably the constellations which marked the watches of the night by coming successively to the meridian.'[3] Kesel is obviously some leading constellation whether identical with *Orion* or not, and the A.V. is therefore correct in rendering Kesîlîm 'Constellations.'[4] The Eleven Stars of Joseph's dream are obviously eleven of the Signs of the Zodiac, he himself representing the twelfth; and thus the incident is explained by Philo Judaeus :—'He who saw this heaven-sent vision, thought that he was being worshipped by eleven stars, ranking himself

[1] 2 *Kings*, xxiii. 5; Zephaniah, i. 4.

[2] Jeremiah, xix. 13; Zephaniah, i. 5.

[3] H. F. Talbot, in *T.* i. 341. Weber (*Hist. of Indian Literature*, 248) understands the Mazzaroth of the twenty-eight lunar mansions, an archaic division of the moon's path in India and China. He conjectures that 'these lunar mansions are of Chaldaean origin, and that from the Chaldaeans they passed to the Hindús.' This is *possible*; but I am not aware that the theory of lunar mansions has as yet been discovered in Euphratean regions; and the Arabs, to whom he refers, might well have borrowed it, with other astronomical lore, from the Hindús.

[4] M. Lenormant agrees, styling the Kesîlîm 'les grandes constellations du ciel' (*Les Origines*, i. 343).

among them as the twelfth, so as to complete the whole circle of the zodiac.'[1] And here I would call attention to the fact that just as the Kemic *seb*, as we have seen, signifies both 'star' and 'constellation,' so it is clear both from the above instance and otherwise, that the Heb. *kôkhâbh*, and, as I shall show, the Assyrian *kakkabu*, of which the Hebrew is of course a variant, have an exactly similar signification. That stars and constellations should bear special names is an idea familiar in Hebrew poetry. Thus we read:—'Lift up your eyes on high, and behold who hath created these, that bringeth out their host by number: He calleth them all by names.'[2]

XXVI.

Archaic Constellations—the Purat Valley.—It could not for a moment be supposed, even in the absence of evidence to the contrary, that the traditional original home of astronomy and astrology was ignorant of constellations. But the matter is beyond dispute, and I may suitably introduce the question of Euphratean asterisms by giving a list of some of those pourtrayed upon Stone B.[3] In a circle around the Moon (full and crescent combined) and Sun, the latter being represented in variant duplicate as male and female, are grouped:—

Five separate Altars, bearing planetary emblems.[4]
The *Great Serpent*. *Draco-Hydra.*
The *Ram*. *Aries.*
The *Bull*. *Taurus.*
The *Sea-goat*. An exact representation of *Capricorn*, as now pourtrayed.
The *Dog*. *Canis Major.*
The *Scorpion*. *Scorpio.*
The *Eagle*. Possibly *Aquila.*
The *Arrow*. Probably put for *Sagittarius.*
The *Bird* (of some kind). Cf. the *Ornis* (*Cygnus*) of Aratos, and *Korax.*
The *Cup*. Probably put for *Aquarius.*

Two other emblems, which may represent *Gemini* and *Leo*, also appear upon the Stone. Of course it is not to be hastily assumed that a constellation called the *Ram* is necessarily identical with *Aries*, because it is obvious that any people

[1] *On Dreams being sent from God*, xvi.
[2] Isaiah, xl. 26; cf. *Psalm*, cxlvii. 4.
[3] Vide *sup.* sec. VII.
[4] Vide Appendix II.

might have used such a name independently; but so far as the question of the Euphratean connexion of the Signs of the Zodiac is concerned,[1] I must refer the reader to the works of Prof. Sayce and M. Lenormant on the matter, and also to a monograph of my own in which the theory is fully developed.[2] 'The Chaldean astronomers,' says Prof. Rawlinson, 'not only seized on and named those natural groups which force themselves upon the eye, but artificially arranged the whole heavens into a certain number of constellations or asterisms.'[3]

Similarly, on the Michaux Stone[4] are shown Five Altars, an *Arrow*, *Scorpion*, *Bird*, *Dog*, and *Great Serpent*. This boundary-stone bears an invocation to thirteen divinities, with the customary curses upon the remover of the landmark. Heaven, as represented by Samas, 'the great Judge of heaven and earth;' Sin, 'the brilliant who dwells in the sacred heaven;' Nabu (Nebo), 'the supreme watcher,' and others, is called upon to bear witness and protect. Hence the constellations, which form the starry eyes of Argos Panoptes, appear upon the Stone in the character of daimonic guardians.

On the Stone of Merodach Baladan I.[5] are shown:—

The Crescent-moon.

The Sun, male and female. *I e.* combining these variant potentialities.

The *Ram*.	The *Calf* (= *Bull*).	The *Animal-fish* (*Capricorn*).	
The *Dog*.	The *Scorpion*.	The *Eagle*.	The *Bird*.
The *Great Serpent*.	The *Lion* (winged).	The *Tower* (*Ziggurat*).	*Ara*.[6]

And several other doubtful objects. The persistence of these types is very noticeable; and their uranographic character is of course determined by the Moon and Sun at their head.

In the *Law of Kosmic Order* (Appendix) I have given numerous instances of the Signs of the Zodiac as occurring on Euphratean cylinders, etc.

The following Euphratean star- or constellation-names occur, amongst others, in the Inscriptions:—

Dayan-same ('Judge-of-heaven'). The Pole-star. Called in Akkadian *Tir-anna* ('The Life-of-heaven').

Gut-An-na ('The Bull-of-heaven'), 'rising in the path of the Sun.' The zodiacal *Taurus*. '"The Bull of the Firmament" was a legend which was pro-

[1] Vide *sup.* sec. IV.

[2] *The Law of Kosmic Order* (London: Longmans, 1882).

[3] *Ancient Monarchies*, ii. 573.

[4] Vide *R. P.* ix. 92, *et seq.*

[5] Vide *sup.* sec. VII.

[6] Vide *sup.* sec. VIII.

bably connected with the second month of the year, originally, it would seem, the first, which like the zodiacal sign after which it was named, was called the month of "the directing bull."'[1]

The *Lion.*

The *Dog.*

The *Bear.* Probably not identical with *Ursa Major*, or the *Plough.*

The *Fish.* Probably the original *Piscis.*

The *Lion of the Sun.*

The *Star of the Flocks.* Probably *Aries* or *a Arietis.*

The Star *Ramanu-icabbid* ('Rimmon-is-terrible').

Marbuda ('The Long Road').

Erib-me-gali ('The Descent of Great Waters'). This might possibly represent *Eridanus.*

Sib-zi-anna ('The Shepherd of the Heavenly Flock'). Perhaps *Arcturus.*

Idkhu ('The Eagle'). Perhaps *Aquila.*

Lula ('The Stag'). The Unicorn-antelope, a lunar representation, often appears on cylinders, etc.

Zibu ('the Wolf'). Probably the original *Lupus*, the *Thêrion* of Ptolemy.

The *Scorpion.*

The *Goat. Capricorn.*

The *Chariot.* Cf. *Auriga*, the *Wain*, etc.

The *Pregnant Woman. Cassiopeia*?[2]

The Bird *Urakhga.* Perhaps the prototype of the Arabian *Rukh* (Roc), 'the rushing vapour'[3] 'which broods over its great luminous egg, the sun, and haunts the sparkling valley of diamonds, the starry sky.'[4] Cf. *Ornis.*

In Aryan mythology the Wolf, 'the largest wild beast in Greece, and the emblem of greediness and cruelty,' became early especially connected in symbolism with absolute darkness.[5] At a later period the animal becomes, as noticed, at times associated with the Light-god;[6] and thus, *e.g.*, appears on coins of Argos ('the Bright'), etc.

The *Prince of the Earth. Cepheus*?

It may next be desirable to examine the word *kakkab* already referred

[1] Prof. Sayce, in *C. A. G.* xiii.

[2] Vide R. B. Jr., *U.* 55.

[3] Sir G. W. Cox, *Mythol. of the Aryan Nations*, 2nd edit. p. 459.

[4] Baring-Gould, *Curious Myths*, 2nd series, 146; vide *inf.* sec. XXIX.

[5] Vide R. B. Jr., *R. M. A.* sec. xii.; *sup.* sec. IX.

[6] Cf. Macrobius, *Sat.* i. 17.

to.[1] One form of the ideograph in ordinary Assyrian is 𒀭. In the cuneiform ideographic transition from direct to indirect representation, that is to say, from drawing to writing,[2] there are at least four successive stages or *avataras* : (1) the Ideographic proper or original representation, a rough drawing ; (2) the Archaic, the first phase of transition from picture-writing pure and simple ; (3) the (so-called) Hieratic ; and (4) the ordinary Assyrian. There is a similar succession in Kem, the principle involved being simply that of the Law of Least Effort. The ideograph for star (*kakkab*) passes through the phases ✳, ✳, 𒀭, into 𒀭. Now another form of the ideograph is 𒀯, *i.e.*, 𒀭 × 3, or three stars, that is to say, an asterism or constellation. Hence we see that *kakkab*, like the other words previously noticed, may mean either 'star' or 'constellation ;' and its proper rendering must be gathered from the context, always however bearing this further fact in mind, that mistakes occur in Inscriptions as in every other branch of human effort, and that the original writer may, in accordance with the Law of Least Effort, have at times used the shorter form when strictly the longer one would have been more appropriate.

The late Fox Talbot, speaking of a Tablet in the British Museum, and which Mr. T. G. Pinches kindly showed me recently, says :—'It is a fragment of a circular planisphere which once contained the names of the 12 months with the Signs of the Zodiac which ruled over them. At present only two remain legible on the fragment . . . one of them is the sign of the Scorpion. It stands as follows ; but the letters are arranged in the curve of a circle :—

(*Arakh*) *Marchesvan* (month) the eighth.

𒀯 𒄈𒋰

kakkab *girtab*

the constellation of the Scorpion.'[3]

Here we notice both the Euphratean connexion of the Zodiacal Signs, the form of the ideograph representing *kakkab*, and the use of that term for 'constellation.' The Akkadian word *girtab* is composed of *gir*, the ideograph of which is 𒄈, originally pictorially representing a 'blade,' 'sting,' or 'pointed tail' ;[4] and *tab*, 'to seize.' *Girtab* is therefore 'the Seizer-and-stinger.'

[1] Vide sec. XXV.

[2] Vide R. B. Jr., *Language and Theories of its Origin*, sec. ix., 'The Transition from Drawing to Writing.'

[3] *T.* iv. 260.

[4] Prof. Sayce.

XXVII.

Diodoros, in a familiar but somewhat difficult passage, gives a brief *résumé* of Chaldean (Euphratean) astronomico-astrology as it existed in his day. The five planets were called 'Interpreters' (ἑρμηνεῖς), and under, *i.e.*, in subjection to, these were marshalled τριάκοντα ἀστέρας, which were called βουλαίους θεούς. 'And they say that the chiefs of the divinities (τῶν θεῶν, *i.e.*, of the "Counsellors" previously mentioned) are 12 in number, to each of whom they assign a month and one of the twelve Signs of the Zodiac' (τῶν δώδεκα Ζωδίων). Through these Twelve Signs sun, moon, and planets run their courses. 'And with the Zodiacal Circle they mark out 24 Stars, half of which they say are arranged in the north, and half in the south.'[1] It is obvious that the worthy Diodoros did not well understand the system which he sets forth, and that with Letronne and Lenormant we should read '36' instead of '30,' as the number of the astral divinities in question; for the 12 protagonists were zodiacal, and they were in the scheme flanked on either side by 12 non-zodiacal stars, thus making up three sets of 12 or 36, a number not arbitrary, for the 12 northern and 12 southern stars were reduplications of the 12 central and zodiacal stars, and the number of these was not arbitrary but depended in turn upon the cycles of the moon during the year.

What then are we to understand exactly from the account of Diodoros which, as Prof. Sayce thinks, may very likely be based upon statements of Berosos, who has proved himself to be a most trustworthy authority. Does he speak of 36 stars, or constellations, or of star-gods? I think that every star is regarded as being the peculiar seat of a special divinity; and on the question whether stars or constellations or both are intended, we are fortunately assisted by the arrangement of a remarkable astrolabe discovered in a fragmentary state by the late George Smith in the palace of Sennacherib. 'In this the heavens and the year are represented by the circular form of the object, and round the circumference it was originally divided into twelve parts corresponding to the twelve signs of the zodiac and the twelve months of the year, the number of degrees in each being marked. Inside these there were twelve other divisions nearer the pole, forming a second and inner circle, *and in each of the twenty-four divisions, the principal prominent star is inserted*,'[2]

[1] Diodoros, ii. 30, 31.

[2] *Assyrian Discoveries*, 407.

Urbat, according to Smith, being the principal star in *Scorpio*, and *Nibat-anu* (which has been generally supposed to be *Mars*) in *Sagittarius*. Here we arrive at the key of the system related by Diodoros. There were 36 star-gods (stars), each being the protagonistic star of a constellation; therefore both stars *and* constellations are intended. Smith seems to have understood the scheme of this astrolabe but imperfectly, for the fragment evidently wanted a *third* circle containing the remaining 12 divisions; it would never have originally represented the zodiacal constellations and only the northern *or* the southern Signs, but would undoubtedly be made to show the whole heavens with the 36 leading stars. These stars, the 'Counsellors' or 'Judges,' are alluded to in an Inscription of Rimmon-Nirari I., King of Assyria, cir. B.C. 1320, who says:—

> 'At that time the ascent to the temple of Assur my lord,
> And the gate of the stars (called) Judges,
> Which existed in former times, was decayed, and
> Was stopped up and was ruined.'[1]

This nomenclature was therefore very ancient. Amongst these Judges was the Pole-star, called Dayan-esiru ('the Prospering-judge'), and 'the Crown of Heaven,' as having the highest seat amongst the heavenly host. 'In the second millennium B.C. the Pole-star would have been Alpha Draconis.'[2] I am unable to agree with the suggestion of Prof. Sayce that Diodoros was wrong in his points of the compass, and instead of placing the 24 stars north and south of the zodiac, should have placed 12 in the East and 12 in the West; for, independently of the difficulty of supposing Diodoros to have so completely misconceived his authorities, such an arrangement would be contrary to the entire constellational scheme as shown by the evidence as a whole; nor does the fact that there were 12 stars called 'the Stars of the West,' and 12 other stars called 'the 'Stars of Akkad' (*i.e.* I presume 'of the East'), militate against the opposite view, for these numbers were very probably analogous reduplications of the prior twelves; and, again, three of the 12 stars of Martu (the West) are said to have been *Jupiter*, *Mercury*, and *Mars*, whereas the planets are excluded from the 24 stars of Diodoros. As M. Lenormant well observes:—'Les douze étoiles *ou* constellations ainsi choisies dans l'hémisphère boréal, sont astronomiquement *les paranatellons des signes*, c'est-à-dire les étoiles qui montent sur l'horizon en même temps que chacun d'eux.'[3]

[1] Ap. Prof. Sayce, in *R. P.* xi. 4. [2] Prof. Sayce. [3] *Les Origines*, i. 591.

XXVIII.

The matter is capable of further elucidation by means of the famous Fifth Tablet of the *Creation Legend*, which records the operations of the Divinity in the arrangement of sun, moon, stars, the year, and kosmic order generally. We read :—

1. 'He made excellent the mansions [celestial houses] of the great gods [twelve] in number.'

Prof. Sayce reads, 'The mansions of the (seven) great gods ;' and 'the seven great gods' are spoken of as the patron divinities of the month Adar. But I think it will be clear on the whole evidence that we should supply 'twelve' and not 'seven,' the twelve being 'the [12] chiefs of the [stellar] divinities,' as Diodoros calls them ; that is to say, the Zodiacal Star-signs, kosmic order being specially associated with the regulation of the solar path through the Signs. M. Lenormant agrees in this view, which will be further illustrated by subsequent verses. Moreover, twelve gods especially called 'great,' headed the Euphratean Pantheon ; their Assyrian names were Anu, Bel, Hea, Sin, Marduk (Merodach), Raman (Rimmon), Samas, Ninip (otherwise Adar), Nergal, Nabu (Nebo), Belat, and Istar. Of these, Anu, Bel, Hea, Sin, Adar, Istar, Samas, Marduk, Nergal, and Raman were also patron divinities of months, the twelve principal zodiacal stars being thus immediately associated with the principal divinities.

The second line runs :—

(lacuna)

kakkabi *yu-tar-su-* (nu) *lu - ma - si* *yus - zi - iz*

which Prof. Sayce renders :—

2. 'The stars he placed in them, the *lumasi* he fixed.'

The *lumasi* he refers to as the 'seven sheep (or oxen) of the hero Tammuz (Orion), of which the first was "the plough-handle," perhaps Benetnash.[1] One of the others was "the shepherd of the heavenly flock" or Arcturus.'[2] It is not stated in the text that these *lumasi* were seven in number, but there were several groups of seven stars, *e.g.*, the planets, and 'a further group of seven stars, called the seven *lumasi* or *dibmasi*, which Oppert is *probably* right in translating "chiefs of the week."'[3]

[1] η *Ursae Majoris*. The three tail-stars are called in Arabic the Banât-nasch ('Daughters-of-the-bier').

[2] *C. A. G.* 64.

[3] Prof. Sayce, in *T.* iii. 173.

M. Lenormant renders :—

2. 'Des étoiles il leur attribua les étoiles de la grande ourse (LU. mási) il fixa.'

And remarks, 'Dans un prochain travail je justifierai cette interprétation.'[1] If, however, *Arcturus* was one of the *lumasi*, these were not the *Plough*-stars nor the stars of *Ursa Major*; and it is hard to understand why the scribe, when giving an account of the general arrangement of the kosmos, should suddenly refer to stars in the *Great Bear*, unless, as is possible, they were specially connected with the days of the week. Having commenced by alluding to the twelve zodiacal mansions, I think he naturally enough continues :—

2. 'The Constellations he placed in them,[2] the flocks-of-the-bright-country he fixed.'

In this case we have a general account without special reference to any particular star or constellation, a course which would seem very strange considering the broad details of the Hymn; and the second clause is a variant repetition of the first, which accords with the style of such compositions. As to the proposed rendering of *lumasi*, it is agreed that *lu* is the Akkadian word meaning 'flocks,' the Assyrian *tsini*, Heb. *tsoun*. We may perhaps therefore treat the rest of the word as Akkadian also. *Ma* (as in Etruscan) is 'land,' 'country.' (*si*) is in origin a drawing of an eye, the stars being the Argus-eyes of heaven; and similarly, *ud* signifies both 'sun,' 'eye,' and white.' Heaven is called in Assyrian 'the land of the silver [*i.e.*, white-light, like that of moon and stars] sky;' and the stars were regarded as the flocks of the heavenly pastures, the Ram leading them through the year.[3]

Prof. Sayce renders Line 3 :—

'He arranged the year according to the bounds (or signs of the Zodiac, Heb. mazzaroth) that he defined.'

Here it still more clearly appears that the zodiacal cincture is the basis of the whole arrangement. Line 4 is of great interest in the present connexion, and with reference to the system described by Diodoros and appearing on the astrolabe referred to. It runs :—

sanesrit arkhi kakkabi salsati yus - zi - iz

4. '(For each of) the 12 [= 10 + 1 + 1] months constellations [the three-star form, used with the addition of , a sign of the plural] three [= III] he fixed.'

[1] *Les Origines*, i. 499.
[2] *I.e.* in the celestial houses already prepared.
[3] Vide R. B. Jr., *L. K. O.* sec. xi.

, *arkhu*, 'month,' is a very interesting ideograph; the Babylonian form is , the archaic Babylonian , the linear Babylonian , a representation of the original , *i.e.*, 10 + 10 + 10 = 30 (days) within a circle, solar or lunar. Thus frequently only by means of intervening forms is it possible to establish a connexion between the original ideograph and its latest variant phase.

The account then proceeds to describe the arrangement of the planets, the laws of the moon, etc.

Now it will at once be evident that, according to the scheme of this Creation Legend, each month having three constellations assigned to it, the original number of constellations was 36, as Diodoros (corrected) gives it; and further, that each month had a zodiacal constellation and two others, which evidently, in accordance with the account of Diodoros and the astrolabe of Smith, were placed one on each side of it, *i.e.*, a northern and a southern constellation. And it is noticeable that the southern constellations which have been examined and which there is reason to connect more or less with Euphratean regions are, excluding *Eridanus* as the original Milky Way, twelve (or about twelve) in number:—

Orion	*Lepus*[1]	*Hydra*	*Piscis*
Canis Major	*Argo*	*Crater*	*Ara*
Canis Minor	*Cetus*	*Corvus*	*Centaurus*

XXIX.

I will next very briefly notice the Northern Classical constellations, 21 in number, namely:—

Andromeda	*Cepheus*	*Delphinus*	*Pegasus*	*Serpentarius*
Aquila	*Corona Borealis*	*Equuleus*	*Perseus*	*Triangula*
Auriga	*Cygnus*	*Hercules*	*Sagitta*	*Ursa Major*
Boötes	*Draco*	*Lyra*	*Serpens*	*Ursa Minor*
Cassiopeia				

[1] 'It is very peculiar that the moon and the hare are brought into connexion in various parts of the world' (Hahn, *Tsuni-||Goam, the Supreme Being of the Khoikhoi*, 137). Dr. Hahn then gives instances of this amongst the Khoikhoi; 'the Herero, a Bantu nation in South-west Africa;' the Japanese, who 'see in the moon a rabbit pounding rice in a mortar;' the Chinese, a Chinese coin showing 'a hare sitting under a bush, and the moon above it;' in Central Asia, where at the feast of Moon-cakes 'the likeness of a hare and the moon was imprinted' on each; and amongst the Hindús, 'one of the Sanskrit names of the moon' being *çaçin*, 'the one with the hare' (vide *sup.* sec. IV.).

At present I do not find any distinct traces of Euphratean influence in :—

I. The Bear-group. *Helikê* ('Twister'—as revolving round the Pole-star), *Kynosoura*, and *Arktophylax*; otherwise the *Arktoi* and *Arkas*, the triad of *Ursa Major*,[1] *Ursa Minor*, and *Boötes*.

Ursa Minor may very possibly not have been an archaic constellation. Strabo, commenting on the silence of Homer respecting it, observes: 'Let no one any longer blame his ignorance for being only acquainted with one Bear, when there are two. It is probable that the second was not considered a constellation, until on the Phoenicians specially designating it, and employing it in navigation, it became known as one to the Hellenes.'[2] Hence it was called *Phoinikè*,[3] and Thales is traditionally credited with having introduced the Sign amongst his countrymen, and taught them to steer by it instead of by *Ursa Major*.[4]

Prof. Oppert, in his learned and interesting brochure *L'Ambre jaune chez les Assyriens*, proposes to translate a passage in the Inscription on the broken obelisk (B.C. 1150–850 ?) :—

> 'In stormy seas [*i.e.* the Baltic !] its merchants fished for pearls;
> In the seas of the culmination of the star Cynosura they fished for yellow copper' [*i.e.* amber].

But this rendering is more than doubtful, and Mr. Proctor suggestively remarks: 'It is impossible not to recognise, from the configuration of this constellation [*Draco*] as now seen, that the ancients looked on the stars which form the Lesser Bear as forming a wing of Draco.'[5]

As to *Ursa Major*, as we have seen,[6] there was a Euphratean Sign called *Kakkabu Dabi* ('the Constellation of the Bear'). The animal is named *sakh* in Akkadian, the Assyrian *dabu*, Heb. *dôb*, and Arabic *dub*. Thus the star *a Ursae Majoris* is now styled *Dubhe* (=Arabic *dubbeh*, 'she-bear'), and the Arabic name of the Sign is *Al-dub-al-akbar* ('the Great-beâr'). It is said that similarly the Iroquois called the constellation or a part of it *Okouari* ('Bear'), which, if true, is a curious coincidence. The Arabian nomenclature is borrowed from the Classical, the native Arabian names for the two *Bears* being the *Great* and *Little Coffins* or *Biers*, in reference, it is said, to their slow and solemn motion round

[1] Robert Recorde, in *The Castle of Knowledge*, states that the part of *Ursa Major* known as the *Churl's Wain* is also in England called the *Brood Hen*.

[2] Strabo, I. i. 6.

[3] Hyginus, *Poet. Astron.* ii. 2.

[4] Vide Aratos, *Phainomena*, 42–4; Kallimachos, *Frag.* xciv.; Diogenes Laertios, i. 23; Ovid, *Fasti*, iii. 107; *Tristia*, iv. 3; Manilius, *Astronomica*, i. 304–8.

[5] *Half-Hours with the Stars*, 15.

[6] *Sup.* sec. XXVI.

the pole. So the three tail-stars of *Ursa Major* are called Benetnasch ('The Daughters-of-the-bier').

Notwithstanding the ingenious suggestions of the Rev. Wm. Houghton,[1] I am of opinion that at present there is no real evidence to connect the *Kakkabu Dabi* with the *Plough* or *Wain*, still less with *Ursa Major*, which latter is an arbitrary extension of the original constellation made for the purpose of uranographic completeness. There is, indeed, an Akkadian star called in Assyrian 'Tail-tip'; but what tail is referred to? Thus *Taurus* in modern times has been represented as a demi-bull, yet we learn incidentally from Pliny that in his time the *Pleïades* were placed in the *Bull's* tail.[2] The Akkadian epithet *sakh-śi-kharra*, Mr. Houghton renders 'bear + horn + heaven,' and says that the projecting tail of *Ursa Major* is 'appropriately enough called "horn of heaven."' I venture to think that a bear's tail is not appropriately called a horn, and that such a combination of conflicting ideas would be quite contrary to the clear and close observation of archaic man. I have noticed Mr. Houghton's theory lest I should be charged with overlooking it, and at the same time wish to express my sense of his great services to Assyriology. I shall of course be glad to alter my opinion on the production of sufficient evidence; for, as Mr. Grant Allen well remarks, 'Modifiability of opinion is the true test of devotion to truth.' Of course the stars of *Ursa Major*, and particularly the *Plough* stars, would be represented in the Akkadian scheme; and Professor Sayce has recently suggested to me that perhaps '"the god seven" so frequently mentioned in the inscriptions' is connected with them. Seven stars in a group are often represented on the cylinders, some fifteen instances being given in Lajard's *Culte de Mithra*.

Lastly, evidence in favour of the Aryan origin and connexion of the *Great Bear* is abundant, and has been marshalled with great ability by Professor Max Müller.[3] When Euphratean constellations became known in Hellenik regions, the Akkadian *Bear* would probably be at once identified with *Ursa Major*, and thus be swallowed up by its larger and more familiar brother.

II. The Horse-group: *Auriga*, *Pegasus*, and *Equuleus*.

III. The pair of (more or less) natural shapes: *Corona* and *Triangula* (*Deltôton*).

IV. *Lyra*. Apparently an Aryan symbol of the wind, connected with

[1] *T.* v. 331, *et seq.*

[2] 'In cauda *Tauri* septem, quas appellavere *Vergilias*' (*Hist. Nat.* ii. 41).

[3] Vide *Lects. Sci. Lang.* ii. 395, *et seq.*

Hermes and Orpheus. Professor Sayce informs me that he has now identified the star *Dilgan* with *Vega* (*α Lyrae*). The remaining twelve constellations appear, like the twelve Southern Signs previously examined, to show traces of Euphratean influence. On analysis they divide into :—

I. The Dragon-contest.

1. First representation : *Draco—Hercules.*
2. Second representation : *Serpentarius—Serpens.*

II. The Family-group :[1] *Cepheus—Cassiopeia—Andromeda—Perseus.*

III. The Bird-group : *Cygnus—Sagitta—Aquila.*

Merops, like Kêpheus, an Aithiop king, is said to have been changed into the Eagle on the death of his wife, who refused to worship Artemis, and was therefore slain by the goddess. Similarly, the Aithiopian Kassiopeia boasts herself to be fairer than the Nereids, and is punished accordingly.[2]

IV. The Fish-sun : *Delphinus.*[3] Hence the important position of the Dolphin in Heraldry, as being like the Lion and the Gryphon a solar emblem.

It is not my intention to analyse these Signs in the present monograph, but merely to show generally that in the heavens the North corresponds with the Centre and South in constellational character. The solar power, whom I may style Izdubar-Heraklês, fights against and plants his foot on the head of the 'lurking' (Ladôn) Serpent-dragon ; and Izdubar is frequently depicted in his contests 'kneeling upon one knee,' being the original *Engonasin*, rightly enough identified with his great Aryan analogue Heraklês.[4] He protects his love against the Tiamat-power (*Cetus*), and wars with the Birds, the dark Storm-clouds and howling Winds ; most of them, like Kyknos (*Cygnus*) and the Stymphalian Birds who fled from the wolves, 'a phrase which exhibits the dark storm-clouds as dreading the rays (Lykoi) of the sun,'[5] the children of the blustering Arês. The Norse Egdir ('Eagle,'[6] Aquila-Aquilo) is one of this group, and it may perhaps be thought that the myth is purely and solely Aryan, but such is not the case. 'The divine Storm-bird,' the Cloud-bird, 'the Flesh-eating Bird,' 'the Giant-bird,' 'the Bird with the sharp beak,' encounters us in Euphratean legend ;[7]

[1] Vide R. B. Jr., *U.* 54–5.

[2] As to the meaning of such mythic incidents, vide R. B. Jr., *G. D. M.* ii. 250, *et seq.* As to the important myth of the Meropes, vide Lenormant, *Les Origines*, vol. ii. pt. 1, p. 56, *et seq.* Lenormant connects the name with the Indian Meru !

[3] Vide Ruskin, *Queen of the Air*, i. 39 ; R. B. Jr., *L. K. O.* sec. xxiii. 'Dagon ;' cf. *Piscis*, vide *sup.* secs. VIII., XI.

[4] Vide *sup.* sec. VII.

[5] Sir G. W. Cox, *Myth. of the Aryan Nations*, ii. 50.

[6] Vide R. B. Jr., *R. M. A.* 28.

[7] Vide *C. A. G.* 115, *et seq.* ; R. B. Jr., *R. M. A.* 54.

and recalls the Birds of Stymphalos, children of Ornis (=Kyknos [1]), who 'ate human flesh' and were overcome by Heraklês. His arrow (*Sagitta*) is in the heavens shot between the Birds; and on a cylinder [2] is shown a successful attack by some personage upon three large and evidently ferocious birds; just as a Greek gem [3] shows Heraklês attacking three Stymphalian Birds.

Reduplication, as of course, obtains largely in the North, just as it does in the South.

The two *Crowns*, northern and southern, do not at present, so far as I am aware, appear in the number of Euphratean constellations. The *Corona Borealis* is connected with the non-Aryan Dionysos, lover of Ariadnê, and, according to tradition, the inventor of crowns. 'Emere ac vendere instituit Liber Pater. Idem diadema, regium insigne, et triumphum invenit;' [4] that is to say, the Sun-god established civilisation, and first triumphantly crowned heaven with his glowing circle. The *Corona Borealis* is a semi-circle or crescent; and perhaps the Kretan Ariadnê was so crowned like Astartê. The *Corona Australis* from its position would almost seem at one time to have formed part of *Sagittarius*, and the *Corona Borealis* of *Boötes*.[5]

XXX.

In conclusion, I will tentatively reconstruct a scheme of thirty-six constellations in accordance with the Creation Legend,[6] and compare Hellenik with Euphratean forms. I by no means absolutely assert the identity of many of the extra-zodiacal constellations in the Hellenik list with the extra-zodiacal forms and personages in the Euphratean list. My principal object at present is merely to call attention to the evident and remarkable general connexion in origin and concept between the two systems. Future researches in Euphratean astronomico-astrology will doubtless supplement and correct the present outline, and decide points now dubious or unknown. The triads are arranged according to character (as reduplications, etc.), not according to celestial location.

[1] Aratos alludes to the constellation *Cygnus* as *Ornis*.

[2] Lajard, *Culte de Mithra*, pl. lxi. fig. 7.

[3] Vide King, *Antique Gems and Rings*, vol. ii. pl. xxxiii. fig. 5.

[4] Pliny, *Hist. Nat.* vii. 57; cf. *Ibid.* xvi. 4.

[5] 'Doubtless this group of stars originally formed the right arm of Boötes' (Proctor, *Half-Hours with the Stars*, 13).

[6] *Sup.* sec. XXVIII.

SCHEME OF THIRTY-SIX CONSTELLATIONS.

I. Hellenik Names.

Perseus	Krios [1]	Kuôn
Kassiopeia	Tauros	Lagôs
Ornis	Didymoi	Korax
Ophis	Karkinos	Hydra
Engonasin [2]	Leôn	Oriôn
Andromedê	Parthenos	Prokyôn
Ophiouchos	[Chelai]	Thyteriôn
Drakôn	Skorpios	Kêtos
Oïstos	Toxotes	Kentauros
Aetos	Aigokerôs	Kratêr
Kêpheus	Hydrochoös	Argô
Delphis	Ichthyes	Ichthys

Eridanos (=Galaxias Kuklos [3])

II. Latin Names.

Perseus	Aries	Canis Major
Cassiopeia	Taurus	Lepus
Cygnus	Gemini	Corvus
Serpens	Cancer	Hydra
Hercules	Leo	Orion
Andromeda	Virgo	Canis Minor
Serpentarius	[Libra]	Ara
Draco	Scorpio	Cetus
Sagitta	Sagittarius	Centaurus
Aquila	Capricornus	Crater
Cepheus	Aquarius	Argo
Delphinus	Pisces	Piscis

Eridanus (=Circulus Lacteus)

III. English Names.

Perseus	Ram	Greater Dog
Cassiopeia	Bull	Hare
Swan	Twins	Crow
Serpent	Crab	Sea-serpent
Hercules	Lion	Orion

[1] As to the Zodiacal Signs generally, vide R. B. Jr., *L. K. O.* secs. x.–xxi.

[2] 'This kneeling figure must have been conceived by astronomers living in other latitudes' (Proctor, *Half-Hours with the Stars*, 18).

[3] Personified as a nymph, the 'lovely Galaxurê, daughter of Okeanos, the Oversea (vide R. B. Jr., *G. D. M.* i. 280).

English Names—*continued.*

Andromeda	Virgin	Lesser Do
Serpent-holder	[Scales]	Altar
Dragon	Scorpion	Whale
Arrow	Archer	Centaur
Eagle	Goat	Cup
Cepheus	Water-bearer	Ship
Dolphin	Fishes	Fish

The River (=The Milky Way)

IV. Euphratean Constellations and Mythic Personages.

Rising-day [1]	Ram	Dog-of death [2]
Pregnant-woman [3]	Bull	Hare
Bird	Twins	Raven-monster
Snake	Scorpion-crab	Serpent-of-night
Izdubar the Kneeler	Lion	Dumuzi [4]
The Woman Oupasamru [5]	Woman	Dog
Brilliance-of-the-sun [6]	Altar-tower	Ziggurat
Great-serpent [7]	Scorpion	Sea-monster [8]
Arrow	Archer	Centaur [9]
Eagle	Sea-goat	Chaos-of-the-deep [10]
Bel-the-confronter [11]	Urn	Ship
Fish-sun	Fishes	Fish

The Mighty-river [12] (=The River-of-night)

V. Pre-Constellational Character of the Concepts.

Solar	Solar	Solar (subsequently Stellar)
Lunar ?	Lunar	Lunar
Storm-cloud	Solar and Lunar	Storm-cloud
Darkness	Darkness	Darkness
Solar	Solar	Solar
Dawn	Planetary [13]	Solar (subsequently Stellar)

[1] *T.* iii. 177.

[2] Urbat. 'A constellation' (*C. A. G.* 107). Cf. the ill-omened character of *Sirius*, the *Shaari lobur* of the Arabs. [3] *T.* iii. 176.

[4] *Tammuz*, the constellation *Orion.*

[5] She was exposed to and rescued from a sea-monster called 'Boul (le dévorant)' (Lenormant, *Les Premières Civilisations*, ii. 23).

[6] The Ak. Amar-ud ('Circle-of-the-sun'), As. Marduk, the Serpent and Dragon-fighter.

[7] 'The star Sir' (Serpent) is named on a tablet which Mr. T. G. Pinches kindly translated for me.

[8] Vide *sup.* sec. VI.

[9] Heabani.

[10] Mummu-Tiamat. Kirker Tiamat ('the Coiling-sea') is also 'the primitive Darkness, mother of all' (W. St. Chad Boscawen, in *Modern Thought*, Sept. 1882, p. 330).

[11] *T.* iii. 202.

[12] Ariadan (= Eri-dan-os).

[13] Primarily lunar, the moon-goddess Tiskhu (Istar). 'Ishtar was the full moon, for which reason she was called the goddess *Fifteen* in Assyrian, because the month consisting of thirty days, the full moon was of

PRE-CONSTELLATIONAL CHARACTER OF THE CONCEPTS—*continued.*

Solar	Solar	Solar
Darkness	Darkness	Darkness
Solar	Solar	Solar
Storm-cloud	Solar	Tempest
?	Solar	Solar
Solar	Solar	Solar
	The Milky Way	

course on the fifteenth day' (Fox Talbot, in *R. P.* ix. 122). Istar, as the moon-goddess, is beautiful and terrible, like Medousa the Gorgô (vide R. B. Jr., *U.* sec. vii.); and reappears as the Homerik Kirkê ('the Round'), the Full-moon, who is naturally hostile to Odysseus, and yet loves him, just as Istar is enamoured of Izdubar. The Izdubar Epic, Tablet vi., gives a most interesting account of the various woes of the luckless solar lovers of the dangerous Moon-goddess. Dumuzi heads the list, and his troubles are well known; but besides him Alala, the Eagle-sun (*i.e.* 'the meridian sun'), was brought down to the Grove of the Underworld (vide R. B. Jr., *U.* 87) with broken wings; the solar Lion had his claws drawn out; the solar shepherd, Tabul, was changed to a leopard or hyena (*i.e.* to the spotted, starry sky; here we meet with the special art of Kirkê); and Isullan, the solar husbandman of Istar's father (*i.e.* Anu, 'Heaven'), who 'each day had made bright her dish' (=disk?), was blinded, like Oriôn, and put in chains 'that he rise not up,' *i.e.* from the Underworld. In all probability the very curious and now familiar legend of the Descent of Istar to the Underworld related primarily to lunar wanderings. The Night-goddess being naturally connected with love, all the phases of the myth, down to Tanhaüser and the Venus of the Horselberg (*i.e.* the hill of the lunar Ursel-Ursula) have a distinctly amorous colouring.

APPENDICES.

I.

THE CROCODILE IN KEMIC SYMBOLISM (Section VI.).

In the *Funereal Ritual* the Osirian or Soul striving to attain to the perfection of the Sun-god, is represented as being assailed during his pilgrimage by divers monsters including the Crocodile of Seb, and the Crocodiles of the East and West, all of whom he repels by prayer and with his spear. 'Back, Crocodile of the West, living off those that never rest,' he exclaims, 'I am not given to thee.' This Crocodile of Seb, the Earth-god (*vide L. K. O.* sec. v., the Kemic Time-god Seb), is the Horizon-darkness, reduplicated in the crocodiles of East and West, who devour the unresting heavenly bodies when they sink to the Underworld. The Crocodile of Kem thus exactly corresponds with the Scorpion, and the two Scorpions of East and West, of Akkad (vide *Ibid.* sec. xviii.). So Har, the youthful Sun-god who avenged his father Osiris, is depicted as standing upon and thus triumphing over the two crocodiles of darkness, and in this phase as the Avenger, is called 'Har of Crocodiles.' One representation (ap. Caylus, *Recueil d'Antiquités*, vol. vii. Pl. vi. fig. 1) shows him so standing, with his face to the east, holding in his left hand, *i.e.* on the west side, a lion by its tail (the Sinking-sun), above which is a scorpion. *'Ορώρει δ' οὐρανόθεν νὺξ* (*Od.* v. 294). The god's right hand rests on the head of a goat or antelope standing on its hind legs (the Capricorn-sun, vide *L. K. O.* sec. xx.), whilst above this animal he grasps the Arau (Uraeus) or Serpent-of-light. Thus, again, the crocodile was regarded 'with particular execration' in Kemic towns sacred to solar or sun-guarding divinities, such as Tanterer (Tentyris), which was sacred to the sun-protecting Hathar; Teb (Apollinopolis Magna), sacred to Har and Hathar; Khinensu (Heracleopolis Magna), sacred to Khnum, 'the divine solar breath' (R. B. Jr., *G. D. M.* ii. 334); and Ab (Elephantine), also sacred to Khnum. The legend of an ancient king of Kem who was chased into Lake Moeris and then carried miraculously across by a crocodile, may have originally referred to the sun-guarding Darkness, corresponding with the Akkadian Scorpions. 'The crocodile's tail stood for the word *khami*, 'black' (Sir J. G. Wilkinson, *Ancient Egyptians*, iii. 191, note 1). But the crocodile appears also somewhat perplexingly as connected with light in the Kemic scheme. Thus

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the god Sebek, who is undoubtedly solar, appears as crocodile-headed, 'dieu crocodile personnifiant les feux redoutables du soleil' (Pierret, *Le Panthéon Egyptien*, 89), 'Sebek-ra personnifiant la terreur qu'inspire le soleil' (Ibid. *Essai sur la Myth. Egypt.* 79). Mr. Renouf, however, observes, 'Sebek, one of the names of the Sun-god, is *also* the name of a kind of crocodile;' and he notices how the cat became a symbol of the Sun-god because *mäu* signifies both 'light' and 'cat' (*Rel. Ancient Egypt.* 237). This symbolism, therefore, seems to have a verbal (play upon words), as opposed to a mythological origin. Clemens of Alexandria observes that, 'of the Egyptians, some show the sun on a ship (cf. *sup.* sec. V.), others on a crocodile' (*Stromata*, v. 7); this crocodile, however, is not solar, but merely a variant phase of the sun-slain Kampê-dragon (vide R. B. Jr., *U.* 72). Iamblichos refers to some who *assumed* that the number 60, which was connected with the crocodile, was in some way 'adapted to the sun' (*Peri Mysteriôn*, v. 8). The crocodile was said to bring forth 60 white eggs, sit on them for 60 days, live 60 years, etc. (vide Aelianus, *Peri Zôôn*, x. 21, etc.). The animal, therefore, in Kemic symbolism is primarily a phase and representation of Darkness, and thus corresponds with *Cetus* and connected concepts.

II.

THE FIVE ALTARS ON STONE B (Section XXVI.).

This Stone is such a remarkable uranographic monument that it is deserving of the most careful examination in every particular. As already noticed, it portrays sun, moon, and constellations; and the host of heaven is completed by the introduction of the five planets, the respective symbols of which appear on five similar altars (cf. 2 *Kings*, xxi. 5). Now 'the order in which the planets [amongst which the sun and moon were always reckoned] are arranged [in the inscriptions] is always the same: the Moon, the Sun, Mercury, Venus, Saturn, Jupiter, and Mars' (Prof. Sayce in *T.* iii. 167); and the arrangement on the Stone is in harmony with this succession. In the centre is the Moon, next which is the Sun; below the latter *and in its deep shadow as if made invisible by it* (*i.e.* lost in the solar rays), stands the Altar of *Mercury*; then to the right the head of the *Serpent*, next the Altar of *Venus*, then the Altar of *Saturn*; then in succession the *Dog*, *Arrow*, and *Bull*; after which the Altar of *Jupiter*, then the *Sea-goat*, then the Altar of *Mars*, whilst the *Ram* completes the circle. That the Altars are not ordinary constellations is manifest, because they (1) form a class to themselves, alike and yet different from each other; (2) are five in number; (3) complete the representation of the different classes of the host of heaven; and (4) bear the several planetary emblems.

I. *The Altar of Mercury*. The planets were called *Lubat* ('old sheep'), *i.e.* protagonistic sheep, leaders of the starry flock; and each had many names, the same name being at times applied to more than one planet. Nabu (Nebo) was the special divinity of *Mercury*, the evening aspect of the star being associated with Nusku, a variant phase of Nabu. The planet had 12 different titles for the 12 months, amongst which were *Sulpa-*

uddu ('the Messenger of the Rising Sun'), *Dir* ('the Dark'), and *Alam* ('the Shadow'), which are all illustrated by its position on the Stone; *Kha Hea* ('the Fish of Hea'), and *Sakvisa*, the *Seches* of Hesychios. From its colour it was known as 'the Blue-star.' Nabu signifies 'the Proclaimer,' *i.e.* (in a planetary connexion) of the Sun (cf. *T.* iii. 169); he is the solar dog and messenger, and is styled 'the god who possesses intelligence,' 'he who teaches and instructs,' 'the lord of the constellations,' 'the overseer of the multitudes of heaven,' 'the supreme intelligence,' Ak ('the Maker') and Tir ('the Judge'). Being



BABYLONIAN URANOGRAPHIC STONE (from Rev. Prof. Rawlinson's *Five Great Monarchies*. Copied by permission of Mr. Murray.)

'the god of wisdom and of learning' (Lenormant, *Chaldean Magic*, 69), 'he is symbolized by the simple wedge or arrow-head, the primary and essential element of cuneiform writing' (Rawlinson, *Ancient Monarchies*, i. 140); and this symbol surmounts his Altar on the Stone. The above grand titles are rightly ascribed to him, inasmuch as he is a solar reduplication, being 'the Eastern Sun' in 'the height of heaven;' and as such was 'identified with the Aryan Mitra' (Prof. Sayce in *T.* ii. 246), a most august divinity (vide R. B. Jr., *R. Z.* sec. xv.). The Sun instructs (illumines), is the lord of constellations, and overseer of the heaven-multitudes; as the Sun-god is the Supreme Intelligence,

Maker (cf. the Kemic Ra, 'the Maker'), and Judge (Dian-Dan), a phase reduplicated in the Pole-star (*sup.* sec. XXVI.).

II. *The Altars of Venus and Saturn.* The next two Altars stand side by side, each bearing a similar object, namely, a conical stone. The two divinities represented by Venus and Saturn are Istar in her variant phases and the god who appears as Dionysos-Stylos, Zeus Meilichios (*i.e.* Melqarth, Melekh, vide R. B. Jr., *G. D. M.* i. 352; ii. 300), and Kronos-Kon, Heb. Kiyyûn (Chiun, Amos, v. 26), Arabic Keyvân, Hittite Ken (Prof. Sayce in *T.* v. 29), Assyrian Kaivanu; and who was connected with the obscure, distant, and ill-omened planet Saturn, 'which was regarded by the Phoenician Shemitic nations as a Kakodaimôn, to be appeased by human sacrifices' (Donaldson, *Theatre of the Greeks*, 14). I am inclined to agree with Movers (*Phönizier*, i. 289) that the Greek *kiôn*, pillar, is a variant and derivative form, the theory which would connect the word with the European (Aryan) root *ski* (vide Fick, *Wörterbuch*, i. 814) being exceedingly doubtful. It would be beyond my present limits to enter upon the general question of pillar-cult, phallic pillars, and conical stones black (Stone B itself is a 'conical *black* stone') and white, more especially as I have treated of the subject with some detail in *The Great Dionysiak Myth*, suffice it to mention one or two illustrative instances. Jeremiah (vii. 18; xliv. 19) describes 'cakes' (*kavanim*, cf. Kaivanu, etc.) made in honour of 'the queen of heaven.' The dough was apparently moulded into the form of a pillar. Tacitus describes the statue of Aphroditê (Istar) of Pappa (Paphos) thus:—'Simulacrum deae, non effigie humana, continuus orbis latiore initio tenuem in ambitum, metae [the conical stone used on the race-course] modo, exsurgens. Et ratio in obscuro' (*Hist.* ii. 3). Pausanias describes the Sikyonian statues of the two divinities as *σὺν τέχνῃ πεποιημένα οὐδεμιᾷ· πυραμίδι δὲ ὁ Μειλίχιος, ἡ δὲ* KIONI [cf. Dionysos Perikionios] *ἐστιν εἰκασμένη* (*Periêgês.* II. ix. 6). Maximus Tyrius states similarly that 'the Paphians worship Aphroditê, whose statue is like a *white* pyramid' (*Dissert.* xxxviii.). Coins, gems, and ancient statues recently discovered in Cyprus and elsewhere, further illustrate the character of the cult. (On this subject generally, vide R. B. Jr., *G. D. M.* cap. VII. sec. ii. Dionysiak Statuary). *Saturn* was called in Babylonia *Lubat-sakus*, 'which is given as a synonyme of Lulim' (*T.* iii. 169), and Lulim signifies 'King' (*i.e.* Maliku, Melekh); whilst Sakus (*i.e.* head + man = first-born, the eldest son of the Sun-god) = Kaivanu. *Saturn*, therefore = Melekh-Kon.

III. *The Altar of Jupiter.* This noble luminary was styled *par excellence Lubat, the* Planet, and with the Phoenicians *Gad* ('the Lucky,' Jovial as against Saturnine, cf. Isaiah, lxv. 11). Its Altar appears on the white part of the stone, whereas those of the other four planets are all in the shade; that of Mercury being, as noticed, in the deepest shadow as most obscured and least seen. In the centre of the Altar is shown an upright object like a lance-head or a double-bladed sword, which is again represented above and unconnected with the Altar, the handle terminating in a circle like a comet and its tail. Fortunately a passage in the inscriptions enables me to give an explanation of this curious representation. We read:—

> 'The star (Jupiter) rises; and its body, like the day, is bright.
> *In its body like the blade of a double sword a tail it forms*' (ap. Prof. Sayce in *T.*, iii. 193).

This is the exact idea expressed upon the Stone.

IV. *The Altar of Mars.* The last Altar, that of the planet *Mars*, is placed in the same degree of shadow as those of *Venus* and *Saturn*, and surmounted by an object which may be described as a chariot-pole terminated by a lion's head (cf. examples of chariot-poles, Rawlinson, *Ancient Monarchies*, i. 408, 410). The god of the planet is Nergal (2 *Kings*, xvii. 30), in Ak. Nir-gal ('Great-king'), whose symbol is the human-headed lion, and who was the War-god (but a higher type than Arês) of the Babylonian Pantheon; Nergal, is 'the "illuminator of the great city" Hades' (*C. A. G.*, 47), the Nocturnal-sun, the opposer of demons, of whom it is said, 'May they come before Nergal, the powerful warrior' (ap. Lenormant, *Chaldean Magic*, 55). Again, Nergal as the 'giant king of war' (*C. A. G.* 47), is an equivalent of Izdubar, and therefore a solar variant in origin, reduplicated in the planet Mars. The habitation of the brave warrior after death is termed 'the resting place of Nergal' (vide *T.* iv. 272), the blessed and peaceful home of the victorious Sun. Nergal supplies another instance of the connexion between the Sun and the Lion (vide Appendix III). Such, then, is the character of the Altars upon this remarkable Stone.

III.

THE SUN-GOD AND THE LION (Section VII.).

The double action of the Sun in nature as at once beneficent—the source of life, light, food, etc., and also at times consuming and destructive, like the mythic Athamas (*i.e.* Tammuz-Dumuzi) or Heraklês Mainomenos—has produced a mythic contest between the beneficent Sun-god and the injurious Sun-god, who frequently appears as leonine, a second reason for which is that in later times he is connected with Sol in *Leo*. Thus Prof. Steinthal observes:—'The Lydians [and Kilikians] worshipped a Sun-god named Sandan [the Assyrian form of whose name is still unknown, vide Lenormant, *Les Origines*, 161, note 8]; he is imagined to be a lion-killer, and is frequently figured struggling with the lion, or standing upon the slain lion. The lion is found as the animal of Apollon on the Lycian monuments as well as at Patara.' (In Goldziher's *Mythology among the Hebrews*, 396). The most familiar instance of this contest is that between Heraklês and the Nemean lion, a myth which from the blending of different lines of thought, Aryan and non-Aryan, is particularly difficult to explain. Stripped of Euemeristic addition, the legend runs that Heraklês, being commanded to bring to his master the skin of the lion, a creature sprung from Orthros and Echidna, and which lived in a cave with two entrances (*ἀμφίστομον*, vide R. B. Jr., *G. D. M.* ii. 9, in voc. *Dithyreites*), at first vainly assailed the monster with his club and arrows; and, subsequently, having blocked up one of the mouths of the cave, entered by the other and strangled the beast with his naked hands. He then carried the carcase back to his master. The business occupied thirty days. Another version (Theokritos, xxv. 251, *et seq.*) of the story makes the fight take place in the open air.

Now the *crux* in this myth arises from the fact that we have here in combination (1) the Aryan concept of the fight between the Solar-hero and the Monster-of-darkness;

and (2) the Semitic concept of the struggle between the kindly Sun-god and the injurious leonine Sun-god, lines of thought of course suggested by the climates of different countries. The monster, for he was a monstrous, not an ordinary lion, has an Aryan parentage. He springs from Orthros, the Vedic Vritra, 'the coverer, the hider, whether of light or rain' (Prof. M. Müller, *Selected Essays*, ii. 492), the western dog of darkness, afterwards himself slain by Heraklês in his tenth labour, and who is reduplicated in this Lion and in Kerberos (vide R. B. Jr., *R. M. A.* 51), and from Echidna, the Vedic Ahi, the throttling snake (cf. Gk. *echis*; Lat. *anguis*), the drakontic, black-eyed, female-serpent whose dark folds are wrapped around the extinguished day; 'but who, whilst in the heavy repose of profound gloom, was suddenly annihilated by the myriad bright eyes of Tistar-Seirios and his fellows' (R. B. Jr., *U.* 76), *i.e.*, Argos Panoptês or the Stars. The Lion's cave with double entrance I have already fully explained elsewhere (vide R. B. Jr., *U.* sec. xi. The Contest between the Lion and the Leopard). The gleaming arrows and the solar torch-club, 'the ever unbroken all-brazen mace' (*Odysseia*, xi. 572) of Oriôn, weapons of the diurnal Sun, must be laid aside when the hero, relying on his own inherent strength, descends shorn of his beams into the monster's gloomy den in the Underworld; and in so doing blocks up the western entrance to the cave, and then, having strangled his enemy, bears off to the upper world the vanquished leonine-sun, who is of course identical with himself. (For Instances of the Principle of Reduplication in Myths, vide R. B. Jr., *U.* 18, 52, etc.). Steinthal well says of the Semitic myth, which by itself is sufficiently involved: 'If the Sun-god does battle against the summer heat, he is fighting against himself; if he kills it, he kills himself. No doubt he does. The Phoenicians, Assyrians, and Lydians attributed suicide to their Sun-god.' But the god in burning himself 'only gains a new youth. Herakles also burns himself, but rises out of the flames to Olympos' (*Mythology among the Hebrews*, 97). 'When the Sun itself is to be killed, that cannot be done with the very weapons which are its strength. The god is forced to catch the burning rays in his own arms; he must extinguish the Sun's heat by embracing the Sun, *i.e.* by strangling the lion' (*Ibid.* 399). The Nemean lion, according to an old tradition referred to by Plutarch, fell from the moon, another incident which connects it with night and darkness, and also with the period of 30 days, during which the labour lasted. The account of Theokritos embodies the Semitic view of the struggle as a diurnal combat.

As to Sandan or Samdan, the equivalent of the Lykian Apollôn, whose cult obtained in Asia Minor generally, it may be observed that the Ak. *sam*, As. *samsu*, is 'the sun,' and the Ak. *dan*, As. *dannu*, 'strong.' Sandan is the equivalent of Raman, the Aquarius-sun and meridian sun. As Simidan ('the Powerful') the god is found as a Sabaean divinity (vide Lenormant, *Ancient Hist. of the East*, ii. 323).

IV.

REPRESENTATIONS OF THE CONSTELLATION ERIDANUS.

1. In the Harleian Collection (British Museum) MS., No. 647, described as the 'ancient manuscript of Cicero's translation of Aratus' (Ottley, in *Archaeologia*, xxvi. 101), *Eridanus*, personified as a river-god, is depicted as a venerable recumbent figure with short beard and flowing locks, holding the stalk of some aquatic plant in his right hand, whilst his left hand rests upon an Urn, whence flow right and left two streams of water. Beneath each stream are three stars.

A MS. in the Cottonian Collection, Tiberius, B. v., contains a copy of the above representation, made at a much later period.

The last leaf of the former MS. contains a planisphere made by a monk named Geruvigus on a somewhat peculiar plan. The *Bears* and the *Dragon* occupy the centre of the representation, a circle being drawn around them, and the remaining ancient Signs being placed in successive circles of increasing size. In the outermost and largest circle is pourtrayed *Eridanus*, a naked male demi-figure, whose right hand is held almost close to his overturned Urn, whence flows a stream of water to *Cetus*. Part of the aquatic plant is shown drawn as if held in the left hand of the figure. Ottley remarks: 'It appears to have been customary, from the first, to illustrate the Phaenomena of Aratus with drawings.'

2. In the Farnese Globe, part of the planisphere near *Eridanus* has been broken, so that the *Fish*, the body of the *Sea-goat*, part of one leg of *Aquarius*, and also part of the *River* itself are not now shown. The remainder of *Eridanus* appears as a winding stream flowing from the leg of *Orion* to *Cetus*, who swims in it, and where it joins a stream from the Urn of *Aquarius*; thence it flows southward down to the broken part of the Globe.

3. In the curious German astronomico-astrological MS. previously alluded to (vide *sup.* sec. III.), *Eridanus* is depicted as a naked figure of doubtful sex, the upper part of the body being masculine and the lower feminine in character. The figure has flowing locks but is beardless, and rests upon the surface of a blue stream which descends as a waterfall, the object being to show the *downward* course of the river towards or from the South. Above the figure is *Cetus*, pourtrayed as an ordinary fish, and red stars are dotted about without any effort at correctness. The design exactly illustrates a transition-period when the River-god has not yet become the Queen-of-the-Sea.

4. In an illustrated Hyginus, edit. 1535, the transition-period is over; and *Eridanus* is represented by water, which gives the idea of the sea, and upon which floats a Venus-figure, very similar in attitude to the last example. A row of stars is represented upon the edge of the water.

5. In Flamsteed's Atlas *Eridanus* is feebly represented by lines meant for water, and in which are the paws of *Cetus*.

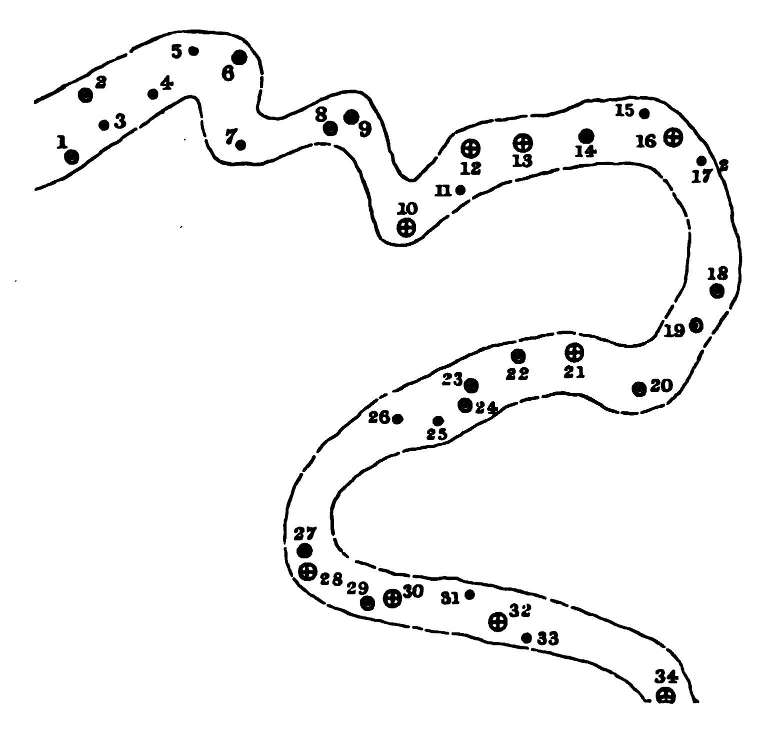
6. On a modern planisphere *Eridanus* appears as a long and winding stream,

coloured blue, and extending from *Rigel* ('the Foot'), in the left foot of *Orion*, past the paws of *Cetus* to *Achernar* (=Akher-an-nahr, 'the End-of-the-river'), a little below which begins the modern constellation *Hydrus*, forming a continuation of the stream at length lost in the darkness of the southern pole.

V.

THE ERIDANUS *OF PTOLEMY.*

In the Star-catalogue of Ptolemy, A.D. 150, which, in all probability, is that of Hipparchos, B.C. 150, the sage who ventured 'rem etiam Deo improbam, annumerare posteris stellas' (Pliny, *Hist. Nat.* ii. 24), 'the constellation of the River has in all 34 stars, of



The Eridanus of Ptolemy (by the Author).

which 1 is of the first magnitude, 5 of the third, 26 of the fourth, and 2 of the fifth.' I have endeavoured in the above figure to reconstruct the *Eridanus* of Ptolemy and Hipparchos. ⊕ represents a star of the third magnitude, ⊙ of the fourth, and ● of the fifth, as at present recognized. Nothing more strongly shows the identity of the Catalogues of Ptolemy and Hipparchos than the fact that though Ptolemy observed at Alexandria, where certain stars are visible which cannot be seen at Rhodes, where Hipparchos observed, yet these stars are not in the Catalogue.

Star No. 1 (λ) is described as 'the Star after that at the end of the leg of *Oriôn* (*Rigel*) and at the beginning of the *River*.'

Star No. 2 (β) is 'the Star to the north of this at an angle towards the shin of *Oriôn*.'

Star No. 17 (σ) cannot now be recognized. I place it conjecturally.

Star No. 18 (τ^1) is 'the Star in the bend of the *River*, touching the breast of the *Sea-monster*.'

Star No. 34 (θ) is ὁ ἔσχατος τοῦ ποταμοῦ λαμπρὸς, and in the Star-catalogue of Ulugh Beigh, A.D. 1433, is called *Al Dalîm* ('the Buckets'). I presume that *Eridanus*, being then connected in idea with the Nile, the most southern known star, was compared symbolically with the unknown source of the Nile in the far south, being the Urn or Buckets (these were used in pairs) whence flowed the stream. Baily observes: 'Most of the commentators on Ptolemy's catalogue have supposed this star to be *Achernar*; but neither the longitude nor latitude of any of the copies will agree with the position of that star; and moreover *Achernar* was not visible at Alexandria. The magnitude has probably changed since Ptolemy's time' (*Memoirs of the Royal Astronomical Society*, xiii. 61). On this last point we need only remember the instance of the star η *Argûs*, which, now scarcely visible to the naked eye, at one time surpassed *Canopus* and almost rivalled the star-king *Sirius*.

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